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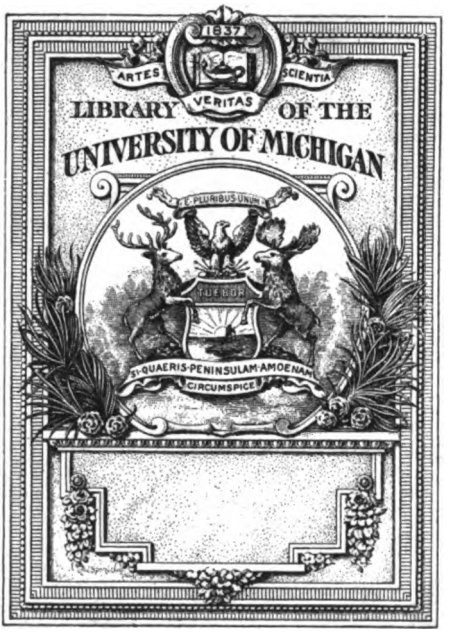

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I. ARTIFICIAL RIPENING OF CATARACTS, by B. Bettman, M. D., *Journal of the Am. M. Assoc.* Dec. 4. 1887.

II. OPERATIVE TREATMENT OF SQUINT, by Ch. B. Taylor, M. D. *Brit. Med. Jour.*

III. DISEASE OF THE EYE DEPENDENT UPON HERPES ZOSTER FRONTALIS, by W. H. Mittendorf, M. D., *Polyclinic*, Nov. 1887.

THE ARTIFICIAL RIPENING OF CATARACTS.

The artificial ripening of cataracts is with some operators, perhaps, a common practice. The question, however, has to my mind not yet been settled, whether it is a wise and valuable procedure. If it could be absolutely proven to be so, and in no way to deteriorate the result of the final extraction, we should, it seems, in fairness to our patients almost always adopt it. Such a shortening of the weary months of semi-and almost total blindness would be a great boon to most people afflicted with cataract, but most so to the class of patients who have to depend for themselves and their families on the usefulness of their eyes. It is therefore of great importance to hear all the testimony which may be brought forward with regard to this procedure.

Dr. Bettman writes as follows:

This is a subject which has not received the recognition from fellow-colleagues that its importance deserves. Only a few articles and comments, scattered here and there, can be found relating to the relief of persons having non-mature cataracts. The third number Vol. xl, of *Knapp's Archives*, contains a communication from the able pen of Prof. Forster, of Breslau, entitled "On the Maturity of Cataract." Forster calls attention to the annoyances patients are subjected to who are afflicted with cataracts of slow development. In many persons the process of degeneration extends over a period of months and years, leaving them in a helpless condition, and in many instances obliging them to forego the enjoyments of life, and resign life-supporting and profitable positions.

So long as the cataract is not mature, an operation is contraindicated. So long as the cortical substance is still firmly adherent to the capsule, extraction of the lens cannot be performed with perfect safety to the patient, for, as Forster correctly states, the remaining layers of cortical substance will imbibe aqueous humor, swell, and give rise to iritis and other dangerous complications. In order to produce more rapid degeneration of the lens substance, he proposes trituration of the cortex. The procedure consists of gently rubbing the cornea with the blunt end of an instrument, usually a strabismus hook or iridectomy forceps. The pressure exerted upon the cornea is transmitted to the lens, loosening and splitting the still adherent and semi-opaque cortical lens fibres. These, in the course of days and weeks become perfectly opaque. The object of the operation has been accomplished; the cataract is mature. I was very much impressed by Prof. Forster's article, and resolved to try his method whenever occasion permitted. I have used the expedient quite often, but have modified it to suit my individual tastes. Instead of rubbing the cornea, I bring the pressure to bear directly upon the lens, by pressing

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against the capsule with a spatula, usually employed to replace prolapsed iris. I prefer this method to the one recommended by Forster for the following reason: Trituration of the lens always follows an iridectomy. After the escape of aqueous humor iris and lens move up against the cornea; the iris contracts and the pupillary field becomes small. When the blunt instrument now is rubbed against the cornea, the pressure, unless limited to the small pupillary area, will not only break down the lens fibres, but will subject the cornea and the delicate iris tissue to an unnecessary irritation. I, therefore, as before mentioned, carefully pass the spatula into the anterior chamber, and if necessary behind the iris, and gently stroke and press the lens in any direction.

Great care must be observed not to exert too much pressure, otherwise a dislocation of the lens might ensue. The flat side of the instrument should always be held against the lens surface. If tilted so as to bring the edge to bear upon the capsule, it no doubt would rupture the latter. It is unnecessary to add that the strictest antiseptic precautions are religiously adhered to, and that the eye should be fixed in case the patient shows an unruly disposition. This, however, is rarely necessary, owing to the anesthetic effects of cocaine. The distribution of opaque lens fibres and general breaking up of the cortex can readily be seen with the naked eye during the operation. The mother of pearl sectors split, break into pieces, and are forced from their former positions. In the course of a few days, yea, even after twelve hours, the entire appearance of the lens has changed. Its anterior surface has now an uniform mottled appearance. When illuminated it frequently resembles a bag entirely filled with a granular mass. In successful cases it becomes entirely opaque, cutting off the yellowish reflex from the nucleus.

This delicate manipulation has rendered me great service, and has rescued many of my patients from a condition which, to say the least, was unpleasant.

The results of trituration of the lens are usually very marked, and in some cases may be termed instantaneous. Vision equal to from $^{3}/_{200}$ to $^{4}/_{200}$, *i. e.*, counting fingers at from three to four feet, can be reduced to qualitative perception of light in twelve hours. In the majority of cases, in fact in every instance where the trituration has been thoroughly accomplished, the lens can be extracted in from three to six weeks after the preliminary operation. During the removal of the opaque lens, the cortical matter escapes as a semi-fluid, flocculent mass. The pupillary field is easily cleared of cortical remnants, and the danger attributed to the lodgement of transparent particles of lens substance in the wound on the iris, is entirely overcome.

A few examples may suffice as illustrations :

Case 1.—January, 1883. Mrs. S. æt. 60. Left eye, nuclear cataract. Mother-of-pearl sectors in cortex. Amber-colored nucleus. Slight reddish reflex from fundus. Counts fingers at five feet. Right eye, incipient cataract; fingers at ten feet.

June 1883. Condition not materially changed. Sight in left eye has decreased; fingers at eight feet. Left eye vision perhaps a trifle less than in January.

The patient being very anxious for an operation, I proposed preliminary iridectomy and trituration of cortex. She readily consented. Operated June 5. June 25 l. lens, to all appearances, perfectly mature. July 15. extracted the lens. Recovery rapid and uncomplicated. V. = $^{20}/_{30}$.

Case 2.—Sept., 1886. Mr. H., contractor, æt. 62. Immature cataract both eyes. Unable to walk about, since two years, without attendant. Vision, both eyes: counts fingers at four feet. Nuclear cataract. Reflex from fundus dull red.

Oct., 1886. Iridectomy and trituration of of cortex, right eye. Six days later cannot count fingers, only able to discern movements of hand. I extracted the lens three weeks after the first operation. The lens and cortex were easily removed. On the fourth day I found my patient out of bed playing cards.

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He left the hospital two days later with vision equal to $^{20}/_{20}$.

Case 3.—Under observation three years. Immature nuclear cataract, both eyes. After much persuasion he yielded to my frequent demands and permitted me to mature the right lens. Vision before operation, counts fingers at a distance of three feet. Twelve hours later nucleus no longer visible, covered by a layer of white opaque cortex. No iris shadow. Removal of lens and subsequent recovery, with good vision, after a lapse of three weeks.

The conclusions arrived at in this paper are as follows: The operation is a feasible one It is easily executed. There is no danger accompanying it. Its results are always marked and rapid. The subsequent removal of the lens is made more facile, and danger from secondary complications after extractions are greatly lessened.

Operative Treatment of Squint.

The following short note by Ch. B. Taylor, contains some points worth knowing considering tenotomy for strabismus.

Appropos to Mr. Snell's suggestion to divide the internal rectus from above, will you allow me to remind your readers that von Graefe always operated from above; a fact to which I called attention when lecturing on squint ten years ago in the following words: "von Graefe incises the conjunctiva over the insertion of the internal rectus, inserts a small hook along the upper border of the tendon—not the lower, as usually stated—and divides it with scissors close to the sclerotic." Whenever I saw von Graefe operate, Dr. Waldau, who was like a third hand to him, always kept the eye everted with forceps during the whole process; von Graefe, however, exposed the tendon, and I gather Mr. Snell operates sub-conjunctivally. For my own part, I have for years operated from above, but in a somewhat different fashion; I pinch up and incise the tissues just below the internal rectus, insert a small hook under the lower border of the tendon, cause its extremity to project beyond the upper border, and cut upon it, dividing the attachment to the sclerotic under the small bridge of conjunctiva which is allowed to remain.

The puncture and counter-puncture is an advantage, as it permits the escape of blood, and the upper border of the tendon, so apt to slip off the hook in the ordinary operation, is in this way certainly secured. I usually divide both recti, but prefer to have an interval between the operations. Children require ether or chloroform, but when cocaine is also used, a few whiffs of either anesthetic suffices. There is one point I did not see mentioned during the discussion on squint, that is the limiting suture which is used in order to avoid over-correction; this should be inserted during anesthesia, and afterwards tightened or withdrawn according to the after-effect of the operation. As a rule, children who squint do so because they cannot see unless they do; their eyes are so flat that many of them are obliged to make an effort to see even at a distance, and in some cases the maximum of accommodation has to be exerted in order to read. This cannot be done without convergence; convergence means squint; squint means double images, and double images are embarrassing, hence one eye soon comes to be used exclusively for working, and the other gets weak. I am aware that this doctrine of amblyopia from exclusion, weak sight of one eye from disuse, has been much discredited of late. Some surgeons even aver that it does not exist (Schweigger), but admitting that in certain cases weak sight of one eye is precedent to squint, I cannot doubt that in a large proportion it is a result of the deformity, if only from the marvellous improvement which I have seen follow total exclusion of the best eye, whether such exclusion has been the result of inflammation, accident, or intention on the part of the surgeon. An excellent means of compelling the weak eye to work is to paralyze the accommodation of the eye for a time with atropine. Spectacles are usually required after operation, but will not suffice of themselves. The operator should aim at under, rather than over, correction, as imme-

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diate brilliant results are apt to be followed by divergence; and when this is the case, it may become necessary to divide one or both external recti, and perhaps also to secure temporary convergence by a new suture.

Disease of the Eye Dependent upon Herpes Zoster Frontalis.

Mittendorf after having shown two patients afflicted with herpes, goes into the following details which are doubtless interesting to our readers.

There is one peculiar feature of this affection, namely, that, in spite of the evidence of pain which accompanies it, there is numbness of the parts to the touch. This is especially marked just over the supra-orbital foramen, and extends more or less back upon the forehead.

Herpes zoster frontalis has been recognized as such for a long time, but, as it occurs so rarely, it is not met with by every physician. In a great many cases it has not been recognized until the patient has sought relief for resulting eye trouble. But in the majority of cases of herpes zoster frontalis the eye is not affected. Fortunately, it is only in exceptional cases that the eye does suffer; for the severity of corneal complications is such that it will not not only impair vision, but during the attack the patient is almost frenzied with pain. The pain is so intense that for weeks he cannot sleep, nor can he open the eye.

The etiology is doubtful. It is known that the affection occurs most frequently in grown persons, and the majority of the patients whom I have seen were men between the ages of forty and seventy, who had undergone continued mental strain, or who had been exposed to debilitating influences. Children are sometimes affected, but in those cases there is usually a more or less strumous diathesis at the bottom of it. Syphilis seems to have some connection with the disease. I remember one case in which acute paralysis of the motor oculi nerve was followed in a few days by herpetic eruptions on the forehead. In this case there was no doubt that the herpes zoster was connected with syphilis. Malarial troubles are likewise predisposing, if not directly exciting, causes. Spinal lesions have been known to be followed or accompanied by herpetic eruptions of this kind; so, also, injuries of the forehead, especially of the supra-orbital nerve. It appears that the disease is increasing in frequency, which may be due to the greater wear and tear of our present life.

With regard to the pathology of the disease, it is a matter of dispute whether we have to deal with an idiopathic inflammation of the nerve affected, namely, the supra-orbital branch of the fifth pair, or whether the trophic fibers accompanying the nerve are affected. Charcot and Baerensprung attribute it to an affection of the Gasserian ganglion; whereas, others think that the sympathetic nerve centers are to blame for it, and others have pointed out that the peripheral nerve fibers were really most affected.

With regard to treatment: according to my experience, arsenic internally and electricity applied to the affected parts give more relief than anything else. In hardly any of the text books will you find electricity mentioned, and yet if you should see how great the relief from the application of the faradic current—the negative pole to the neck, the positive pole applied over the affected parts—you would understand how anxious the patients are to have the electricity renewed. It should be applied every day, a pretty strong current being used—strong enough even to produce a painful sensation in the numbest part of the affected region. In the region of the inner canthus of the eye only a mild current is borne, whereas, over the frontal ridge the strongest current sometimes fails to make an impression. The relief which the electricity gives lasts long enough to give the patient comfortable sleep, which he probably had not enjoyed for a long time. The electricity does not only seem to relieve the pain; it favors the healing of the pustules very markedly, and the cases which I have so treated got well much quicker and left much less pitting, because the process did not become so severe as in those cases which were

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not treated with electricity, of which the patient whom we saw yesterday gives a very good example. The pitting in that case was so deep that you could put a split pea into some parts and it would lie even with the surface. Very deep pitting does sometimes occur, but I have never seen it in cases in which electricity had been used.

Arsenic may be given in combination with a mixture of rhubarb and soda as follows:

℞ Extract. rhei fluid.,
Sodii bicarb., aa ℥ij
Tincturæ zingiberis,
Tincturæ menthæ pip., aa ℥j
Liq. potas. arsen., ℥iss.
Aquæ, ℥vj.

Let the patient take a tablespoonful three times a day.

I have also found great relief by giving the arsenious acid with quinine.

℞ Quininæ sulphatis, ℥ss
Potassii bromidi, ℥j
Acid. arsen., gr. j
Capsici pulv., gr. v.

Divide into twelve capsules, and give one capsule three times a day.

This is a very large dose of arsenic, one-twelfth of a grain three times a day; but the beneficial effects of it are so charming that I have not hesitated to give it in such large doses for three or four days in succession, until the symptoms were greatly relieved, when I would give only one or two doses a day instead of three.

With regard to ocular complications, cooling applications, if the conjunctiva alone is affected, are called for, and of these the yellow oxide of mercury, one grain to half an ounce unguentum petrolei, applied several times to the conjunctival sac, will give great relief. Boric acid, a solution of ten grains to an ounce of water and a drachm of cherry-laurel water, makes one of the most pleasant applications, which may be used hourly if necessary.

If the cornea is affected, atropine alone is the best remedy at our disposal; eserine, which is so much used for corneal affections at the present time, has increased the pain in the eye to such an extent in several cases that I have discontinued its use in herpes zoster of the cornea. Atropine with cocaine, although the effect of the latter is only transient, seem to give more relief than eserine. Irritating applications to the eye should be carefully avoided if the cornea is affected. Even the yellow oxide ointment seems to irritate sufficiently to give the patient considerable discomfort, and I have discontinued its use entirely on that account, and used it only when the conjunctiva is affected.

As soon as the pain subsides and the healing of the pustules begins, I apply to the eruption on the forehead a salve composed:

℞ Hydrarg. oxid. rub., - gr. x.
Morphinæ sulph., - - gr. iij.
Ungt. simpl., - - ℥ss.

After bathing the parts in a mild, warm solution of sodium biborate, which will cleanse them very effectually, a very small quantity of the salve is applied to the sore spots. They ought not to be covered by bandages. A new portion of the salve should be applied morning and evening.

ORIGINAL ARTICLES.

DIPHTHERIA.

Remarks by Dr. Y. H. Bond, in discussion before the Medical Press Association on Dr. Moore's paper.

In the earlier portion of my professional life, I was so unsettled in my ideas of the nature of diphtheria, that I was guided in my treatment of the disease, by a disposition to empiricism to so great an extent, that it seems that I could more readily enumerate those agencies or remedies, that I have not tried, than those that I have—this of course is hyperbolic, but it serves to illustrate the multiplicity of agents that I have used in the treatment of this disease. And even to day, after the extensive experience that I have had with the disease, I am constrained to say that I hold as absolutely established very few—if any—conclusions, as to the nature and treatment of diphtheria; and it has frequently been a serious question with me, as to whether

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the various methods of treatment that are commonly resorted to, are in any considerable measure conducive to good. I very seriously question the great measure of importance assigned to most of them, and am disposed to think that in a very large number of instances recovery would ensue were the case left to the vis medicatrix naturæ—quite as readily and surely as from the treatment given.

The question that forces itself upon one's attention at the very threshhold of his inquiry into this trouble, is this—Is the membranous exudation the primary or secondary manifestation of the disease. I am disposed to believe from a number of circumstances that the disease is primarily local, and that the nature of the diphtheritic poison is that of a "contagium vivum." The most important observations or experiments upon this subject are those of Loeffler, conducted after the manner and under the supervision of Koch. Two kinds of organisms were found—one a bacillus situated in the deeper tissues, inoculations from the culture medium of which produced pseudo membranes in rabbits and chickens. These observations carry with them a certain weight in affecting one's conclusions, but to the logical mind they lack conclusiveness, they are alluring in that they move the current of fashionable sentiment, respecting the bacterial origin of many diseases.

In the treatment of the disease, my line of conduct in the average case may be outlined thus. With the view of emptying the primæ viæ, I order a suitable dose of calomel. I apply to the membranous exudation a solution of mur. tr. ferri and glycerine, equal parts. This preparation being held upon the membrane a few seconds, it causes its desiccation, it becomes cooked as it were, and at once loses its white and vitalized appearance, and in a short time, if not immediately, is exfoliated from the mucous surface; the duration of its adherence being determined chiefly by the thickness of the membranous layer, and the consequent difficulty of its thorough permeation by the iron solution, a stronger solution of which I have found too irritating to the underlying and adjacent mucous membrane with which it might come in contact. The frequency of this iron application is to be determined by the direct observation of the physician, and is rarely, if ever, indicated more than twice daily—usually only once. Following the use of the iron and glycerine, I order the throat or affected part to be swabbed with listerine of full strength every two hours, aiming thereby to render the parts as thoroughly aseptic as is practicable, having a due regard for the requirements of the general system and the disturbance thereto, occasioned by this—to the child—unpleasant method of treatment. So long as the lymphatic glands do not indicate, by their enlargement, an involvement of the lympathic system, I continue at the interval indicated the local use of the listerine—during the night as well as the day time. The theory of this treatment lies in the assumption that the constitutional affection is septicemic in its nature, and that the septicemia is derived from the products of decomposing exudate, rather than, as is commonly supposed to a special and distinctive toxemic state consisting in bacterial entrance and multiplication within the system. Experience teaches us that in most cases not more than three successive layers of membrane are produced and if the vitality of the system has been sufficient to withstand the disease so far, as a rule the membranous formation ceases. May we not argue from this that usually so much of the history of the disease is essential for elimination of the specific bacillus, as occurs in the case of other pathogenic bacteria? If so the wisdom of this medical treatment will be apparent. As regards constitutional or general treatment, my experience inclines me to deprecate the use of mercury given for its constitutional effects. For two reasons, first, the primary or local stage of the disease in most instances is so short, that were the grounds for its use well founded, that by the time that the system was fully imbued with the mercury, the primary stage would be well nigh passed. My

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second objection to it lies in the fact that under its influence the number of the red-blood corpuscles becomes diminished, and the vitality of the system thereby reduced, encouraging thus a tendency to exhaustion, the usual mode of death. Repugnance to food is a notable feature in most cases, and with the view of preventing as far as possible, those blood changes that are liable to ensue, I am in the habit of having my patients supplied with every variety of fresh fruit that the season permits of; and I find that children will often partake of fruits, when they will not touch any of the ordinary articles of diet. In cases marked by great debility, I use alcoholic stimulants in very large quantities, but I cannot say that my experience causes me to be sanguine of great results, let the quantity used be ever so great.

One feature of the disease, to which no reference has been made in the discussion so far, is that of the proper time when intubation or tracheotomy should be resorted to, in cases involving the larynx. I am firmly persuaded that so soon as the laryngeal or tracheal obstruction is so great as to interfere in any pronounced degree with the respiratory process, then surgical interference is clearly indicated. I do not think that emetics should ever be resorted to in those cases of croup that are undoubtedly due to diphtheritic deposit, and to the experienced observe there is usually no great difficulty in determining the diphtheritic nature of the case, or otherwise.

If emetics be used, then nutrition in one of the most important directions is suspended; and superadded to this depressing agency, we have imperfect hematosis. The improved aeration of the blood resulting from emetics is of short duration in the vast majority of cases, and I do not consider it wise to sacrifice the nutritive forces upon which the main reliance will have to be placed, as soon as the respiratory difficulty has been overcome by surgical intervention.

Another feature to which I will allude is the liability to sudden death from heart failure occurring some considerable time after the acute attack. I believe that by insisting upon the recumbent position, the avoidance of straining at stool etc., a number of such, cases might recover. It might be inferred from the spirit in which I have spoken that my personal experience in this disease had been a very unfortunate one, and yet such is not the case. I have had no such death rate as the public records attribute to diphtheria. I candidly do not believe that I have had to die more than one out of every ten cases that I have treated. This result I ascribe to the fact that my patients are usually of the well-to-do class. The nutritive processes are in a healthful state and the natural tendency to recovery is correspondingly strong. A conclusion to be of value, must be drawn from the entire field of research and not from the narrow limits of individual personal observation.

TREATMENT OF THORACIC ANEURISM BY THE INTRODUCTION OF WIRE.

M. Charmeil, of Lyons (*Revue de Medecine*, Aug. and Nov. 1887) has collected the details of fifteen cases of aortic aneurism in which "Moore's method," as he terms it was employed, from the original case in the Middlesex Hospital to three previously unpublished cases in the practice of M. Lepine. Although not one of the fifteen cases has resulted in the cure of the aneurism, M. Charmeil concludes that the practice itself does not involve any direct danger to the patient, and that the results ascertained at the necropsies have been encouraging. Clinically the treatment has nearly always been followed by local improvement, as well as by relief of subjective symptoms. He therefore thinks the method is justifiable and worthy of continued trial, and indicates as essential to its favorable practice a preliminary exploration of the aneurism by means of acupuncture needles the use of the watch-spring of Bacelli introduced through a flattened cannula, and the most rigid adoption of antiseptic precautions. At the same time recourse should be had to Tufnell's dietic treatment.—*Lancet.*

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OUR NEW YEAR'S GREETING.

We thank the many friends of the REVIEW, subscribers, advertisers, collaborators and friends who have given us during these holidays the welcome Christmas gift of their influence and good wishes, and we return our reciprocal hearty good wishes, for a Happy New Year to all.

The REVIEW can not fail to prosper with the assured support of its many friends, and we shall not fail if we are but fairly sustained, as we have every reason to hope we shall be, based on past assurance and support, to make the WEEKLY MEDICAL REVIEW, worthy of the confidence and support of the profession.

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IDIOT SAVANTS.

Before the section on psychological and neurological medicine, of the recent International Medical Congress, Dr. Langdon Down entertained the section with a very intertaining talk on this subject.

The following are some of his illustrations of these interesting patho-physiological mental phenomena which were communicated to the *British Medical Journal* before the meeting of the Congress by the distinguished alienist of Morningside. Dr. Down makes no reference to America's most remarkable idiot savant, blind Tom, the world's musical prodigy, so we judge he has not seen the black idiot display his most astonishing powers, considering the otherwise general make-up of his intellect.

Dr. Down applies this term to children who, though feeble minded, have special faculties, capabilities and even aptitudes for extensive cultivation in certain directions. He had one youth under his care who could build exquisite model ships from drawings, and carve with a great deal of skill, who yet could not understand a sentence, who had to have his food cut up for him, and who, when writing to his mother, copied *verbatim* a letter from "The Life of Captain Hedley Vicars," by Miss Marsh, although it had not the slightest appropriateness in word or sentiment. Another has been under his care who can draw in crayon with marvellous skill and feeling, in whom, nevertheless, there was a comparative blank in all the higher faculties of mind. A boy came under his observation who, having once read a book, could evermore remember it. He would recite all the answers in "Magnall's Questions" without an error, giving in detail the numbers in the astronomical divisions with the greatest accuracy by a simple process of verbal adhesion. Dr. Down once gave him Gibbon's "Rise and Fall of the Roman Empire" to read. This he did; and, on reading the third page, he skipped a line, found out his mistake, and retraced his steps. Ever after, when reciting from memory the stately periods of Gibbon, he would, on coming to the third page, skip the line and go back and correct the error with as much regularity as if it had been part of the regular text. Later on, his memory for recent reading became less tenacious,

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but his recollection of his earlier readings never failed him. Another boy can tell the tune, words, and number of nearly every hymn in "Hymns Ancient and Modern." Often memory takes the form of remembering dates and past events. Several children under his observation have had this faculty in an extraordinary degree. One boy never fails to be able to tell the name and address of every confectioner's shop that he has visited in London—and they have been numerous—and can as readily tell the date of every visit. Another can tell the time of arrival of all the children at an institution, and could supply accurate records in relation to it if needed. Another knows the home-address of every resident who comes under his observation, and they are by no means few. The faculty of number is usually slightly developed with feeble-minded children, whilst memory is fairly well developed; and yet he has had under his observation cases where the power of mental arithmetic existed to an astonishing extent. One boy, about twelve years of age, could multiply any three figures with perfect accuracy, and as quickly as he could write the six figures on paper; and yet, so low mentally was he that, although having been for two and a half years in the almost daily habit of seeing me and talking to me, he could not tell my name. Another boy, who had recently been under his observation, can multiply two figures by two figures; while another can multiply rapidly two figures by two figures, and a short time since could multiply three figures by three figures, but since an epileptiform attack has lost this faculty to some extent. None of them can explain how they do it, that is, by what mental process.

It has appeared to him, however, when by rare chances they have made a mistake, and some hesitation has arisen, the plan has been to clear off the multiplication of the higher figures first. Improvisation is an occasional faculty. He had a boy under his care, who could take up a book, pretending to read—an art he had not acquired, and improvise stories of all kinds with a great deal of skill, and in any variety, to suit the supposed tastes of his auditors. Memory of tune is a very common faculty among the feeble-minded; they readily acquire simple airs and rarely forget them. He has had one boy under his observation who, if he went to an opera, would carry away a recollection of all the airs, and would hum or sing them correctly. In none of the cases of "idiot savants" has he been able to trace any history of a like faculty in the parents or in the brothers and sisters, nor has he had any opportunity of making a necropsy, except in one instance. This was in the case of a boy who had a very unusual faculty, of which he has never since met another example, namely, the perfect appreciation of past or passing time. He was seventeen years of age, and although not understanding, so far as he could gather, the use of a clock face, could tell the time to a minute at any part of the day, and in any situation. He tried him on numberless occasions, and he always answered with an amount of precision truly remarkable. Gradually his response became less ready. * * * His health became enfeebled, and the faculty departed. At a necropsy he found that there was no difference in his cerebrum from an ordinary brain, except that he had two well-marked and distinct soft commissures. * * *

This is an interesting subject and indicates from a clinical stand-point, what physiological experiments and pathological demonstrations tend to establish, viz., the existence of psychical as well as psycho-motor cerebral localization. HUGHES.

NITRITE OF AMYL.

A practicable and efficient method for administering nitrite of amyl, and one which we consider preferable to and possibly more economical than the use of pearls, consists of a two drachm vial filled with surgeons' sponge, and saturated with from half a drachm to a drachm of the amyl nitrite. These vials could be made of hard rubber for epileptics and suspended by a neat cord reaching to the vest pocket.

They are always ready for use by the pa-

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tient, if the precursory aura gives him time, by friend or physician should he fall in a fit in the presence of others.

The stopper should be made secure to the neck of the vial. HUGHES.

NERVE CONTROL OF MUSCLES.

Dr. Thomas W. Poole has followed up the interesting paper contributed to the *Alienist & Neurologist*, on "nerve paralysis and contraction of involuntary muscles," by an entertaining and instructive *resume* and *critique* of prevalent physiological doctrine regarding the interrelation of nerve and muscle, insisting upon a modification, or rather reversal of current physiological teaching on this subject. The prevailing anatomical facts are accepted by the author, but his deductions are that paralysis, instead of stimulation, causes muscular contraction, striated and unstriated.

Every neuro-physiologist will find the paper of Dr. Poole exceedingly interesting reading, and will be struck with the power of Dr. Poole's objection to the prevalent physiological interpretation of interrelated nerve and muscle movement, whether he accepts his conclusions as final truth or not, will be entertained with the agreeable and enchanting survey given of this attractive domain of neuro-physiological discovery and thought.

After reading Dr. Poole carefully some will probably be of the same opinion still, others will accept the new explanation, while still others will probably reach the conclusion that neither the theory of stimulation or of paralyzation explains all.

The theory of Dr. Poole treats the physiological world to many surprises. Among them the incidental and necessary conclusion from his premise, that electricity is not a stimulant but a paralyzant, strychnia likewise, that paralytic hyperemia is secondary and venous, that the prevalent theory of Cheyne-Stokes respiration, and of the condition of "pithed" animals is erroneous, etc.

INSANITY IN SOMNIC FORM.

Under this caption, Dr. C. H. Hughes, in the *Alabama Med. and Surg. Journal*, has chosen to include a class of cases closely allied to hysteria in their somnavolistic symptoms, and yet with elements of mental perversion and antomatism which he concludes entitles them to be classed as insanities in somnic form. He says:

The insanities in active wakeful states are indeed common, and have, of late years, under the exciting influences of telegraphic, telephonic, and railroad stimuli to incessant cerebral activity, become all too familiar to the profession and the people. Compared with the past the conditions of modern life have materially changed in the direction of ceaseless stimuli to mental action.

The tallow dip and the fagot light have been replaced by the tenfold and twentyfold illuminating power of coal oil, gas, and electricity, and under these and the increased competitions of trade and professional life the cerebrum is permitted but little rest. We live faster by far than our fathers, and are gathered to them sooner than they were called to follow after those who had gone before them. Life is now a ceaseless battle for existence, in which only the physically fittest survive. The asylum and the grave now get more than their due share of the premature victims of successful overwork or unsuccessful mental waste and worry. They fall in countinghouse and schoolroom, at the bar and at the bedside, wan, worn and wrecked with the worrying work and anxious worry of our times, hastened to ruin by the alluring vice of stimulation taken when nature asks for rest, whipped and goaded to brain destruction by alcohol, postponing the sleep so much more than ever before needed by our brain workers to keep up recuperation and repair of overtaxed cerebro-psychical centers.

Under this wild waste of brain power forms of insanity are appearing unknown to our ancestors, in which stimulation and over-work, and worry, and in many cases secret vice combine to prematurely break the brain.

New phases of alcoholic aberration, as Crothers and Wright, of this country, and Magnan, of France, have shown, confront us. New forms of epileptic aberrations and phases of hysterical insanity, hystero-epilep-

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toid and hystero-cataleptoid mental derangements are coming daily to notice. Disease of the mind follows the changed combinations of causes. New spheres open for some, new ambitions possess, and new burdens fall upon others and their minds bend and break under their influence.

The cases mentioned * * * are the neurastrophic forms of cerebral exhaustion in such as have chronically overstrained brains, or inherit the neuropathic diathesis with especial tendency to give out in the head before structural lesion is established.

Such cases are usually promptly curable under appropriate treatment under changed environments. They are seldom cured at home or by the practitioner to whom they first appear. They must have new surroundings, absolute brain rest, after awhile judicious diversion, chemically-regulated sleep, and an abundant and assimilable nutrition.

Mistaken Medical Advice in Regard to Travel for Persons Having Certain Forms of Mental and Nervous Disease.

One of the most egregious of professional blunders falling under daily cognizance of the alienist and neurologist, is of the character indicated in the caption.

A physician, whose range of clinical experience may have been limited to the ordinary run of a general practice, or who possesses at most but a small and superficial, and therefore dangerous kind of knowledge of the graver nervous diseases, (if he practices upon it), especially of such as involve the mind in derangement, and not knowing what ought to be done, or might be done by others, jumps at that facile *dernier resorte* of medical perplexity and rashly recommends travel. No error in the departments of psychiatry or neurology has been more fatal to the welfare of patients, or more damaging to the reputation of the practitioner than this.

A grave symptomatic change comes over a patient, incomprehensible to his family physician. He becomes more despondent about his business affairs than is natural to him, begins to speak apprehensively, when formerly he talked with hope and confidence of these and other personal concerns, or his spiritual welfare suddenly begins to especially trouble him. He talks, perhaps of the possibility of being damned; he hardly thinks life is worth living, though a few weeks before he thought a good deal of it, and no real cause, outside of himself, has brought about the change in his feelings. May be he expresses the suspicion that his friends do not esteem him as they used to, that they look down upon him. If due inquiry is made of himself or his family it is found that he does not sleep well, and that his bowels are sluggish, and indifference has supplanted his accustomed relish for food. His pulse may or may not be normal. In a sort of guarded way he goes to his family physician, and talks to him.

His physician examines him, prescribes for him according to what physical symptoms appear prominent, and according to the limit of his psychiatric knowledge, pooh!poohs!his ailment, tells him, perhaps, that his liver is out of fix, and he'll fix that, and in the next visit or two of the poor spirited patient, failing to benefit him, recommends, or acquiesces in Hot Springs or Eureka or a trip away somewhere else, perhaps to Europe. Tells him to bestir himself and shake off his gloom. If the patient has the misfortune to be a woman, he will probably propose a course of local gynecological treatment, a woman's brains unlike those of man's being mostly in her genitalia.

Failing in the gynecological course as the experience of all asylums attest, they do in a large majority of cases, unless it be constitutional and aimed through the ganglionic system at vaso-motor pelvic paralyses and the consequent vascular congestions common to women of lessened nerve tone, or unless it be combined with a constitutional neurotic and hematic reconstructional plan and tranquilization and control of the nervous system—cerebro spinal and ganglionic—as such cases require, combined with a change of surroundings, she too is recommended to travel to

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White Sulphur or some other springs, if she is not sent across the sea with a chance of committing suicide on the way.

There is far too much of this random and unskilled advice. It is comforting to have a patient where he will no longer advertize the incompetency of his physician, and abide in the community as an *opprobrium medicorum*. But patients rashly sent away in this manner without such medical treatment and attendance as they require, are apt to return like curses and chickens, or be brought back as corpses, to the discredit of scientific medicine.

Physicians should be cautious about this kind of advice. There are too many health resorts recommended for diseases that only medical skill can cure, and there is too much travel recommended in lieu of that skilled medical treatment which alone can cure certain patients, and to send away patients afflicted with grave nervous diseases and threatened insanity without proper medical attention, is a criminal over-sight and neglectful of their true medical welfare, which it is the duty of the physician to study and guard.

This same arraignment might be made of many thoughtless medical men who consign the wrong patients to the massuer and the masseuse, a fashion just now overdone, for massage is only exercise, and the physician might, if he would learn to apyly it far more effectually than the ordinary muscle manipulator, if he would take the trouble to use his own static machine in such cases, for electric massage is far better than manual kneading and rubbing.

The best way is to keep the patient in our hands, or place him in the care of some other physician competent to treat his malady and wisely direct the patient's recreations, and regulate his enviornments with a view to the best mental results. Massage and the spas, and the sea, and the mountains or valley are auxiliaries, not substitutes, for medical treatment in grave maladies of the nervous system. They may be prescribed, but we should know well the influence of the new climate and the environmen before we commit our patients to them, be reasonably well assured that the patient who confides in our advice has a good prospect of benefit if he goes from our care and a continuance of judicious treatment is often as essential with a change of environments in the psycho-neuroses and the neuroses as is medical adviceand treatment at home. To sent them away to rely upon themselves is to stigmatise medicine as futile in the management of these diseases, and this is not the truth. HUGHES.

MIMICRY DISEASES—NERVOUS CONTAGION.

The subject of nervous contagion is always one of interest to the physician. The psychical faculty and inclination to imitation under peripheral excitation, whether reaching the mind through the vibrations of sweet or martial musical sounds, the cadences of silver tongued oratory, the gesticulations of pleased, impassioned or pained feelings, or symptomatic expressions of disease, is founded in physiological fact. The difficulty of resisting a yawn when others are yawning, and the facility with which children incline to take on chorea when in constant association with other choreic children, and the morbid involuntary mimicry of hysteria in boarding schools and convents are quite as familiar to us in our day as the contagious convulsionary diseases of the middle ages.

The phenomena of hypnotism, mesmerism or somnavolism, mind reading and mind cure, and the so-called Christian science and faith healing have made us almost as familiar with a force or neuric psychical influence as we are with the subtile power of the magnet and galvanism, of which we have learned so much since the days of Volta and Mesmer, of Franklin and Faraday, and yet know but little in comparison to possible future revelations.

Did science require to know precisely what a force is before admitting its existence, it would still reject the law and deny the power of gravitation, of chemical affinity and cohesive attraction.

Mimicry diseases have something more

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than mere mental caprice for their existence. The evil communication that corrupts good physiological manners, and causes abnormal action and morbid expression to take the place of proper conduct in an organ (or in all the organs of the body, as sometimes happens) has a law for its existence which, though as yet hidden from our ken, is as certainly existent as gravity or malaria.

Medical science believed in the intangible virus of a contagious force, and still believes in it, even though the lens does not reveal the microbe or reagent, the ptomaine or leucomaine (the parasite or the power whatever it may be), that causes the disturbance.

Rush and even Hippocrates told us of the contagiousness of phthisis, and the world knew of the fatal communicability of cholera before Klebs and Koch gave us their bacilli, and we did not wait for the demonstrations of Tomassi-Crudelli before we believed in the potency of paludal miasm.

In the light of these facts we need not smile when Crothers gives us clinical evidence as clear as the proof of the communicability of hysteria or chorea at least, to prove that inebriety under certain circumstances is contagious.

The brain of man is inclined to act responsively to psychical impressions, whether morbid or healthy, and in certain states of lowered tone, when inhibition is below par or abeyant it more readily inclines to act imitatively. A peripheral morbid impression exacts under these circumstances an abnormal responsive mimicry.

To spread certain nervous diseases there needs to be but a receptive neuropathically inclined organism, a more or less severe neurotic strain from loss of sleep, grief, fatigue or expectant attention, and a suitable peripheral or external impression. Under these circumstances the convulsion diseases of the middle ages, the dancing mania, the tarantism, or St. Vitus' dance, that swept over Italy, Germany, the Netherlands, and the Tigritier of Abyssinia are explainable, and the simulations of insanities of patients by the insane in asylums.

In this light we are better enabled to comprehend as physicians the possibility and the existence of communicated or induced insanity found here and there in the literature, especially the cases reported in the *Alienist and Neurologist*, by Parsons and Kiernan, and the following brief record by Kreuser in *Medicinishe Wochenschrift*, No. 36:

A girl, eigtheen years old, began to suffer from religious melancholia, with delusions of obession, and having no treatment soon became insane. She passed whole days and nights praying and making her parents pray also. A few days later the family shut up the doors and windows, and all sat around the table with Bible and Prayer-Book before them. The father and mother pounded on the table with their fists and cried continually: "If it is right, so must it be." Everyone who tried to enter the house was driven away with blows. The most violent of all was the younger sister of the patient first seized. Finally the neighbors became alarmed at the state of things and made a regular assault upon the house, finally gaining admittance, and then carried the inmates off to a hospital. Here the patients gradually became quiet, and were restored, one after another.

It was our own Paracelsus, the mighty-minded physician, who, in the beginning of the sixteenth century, drove out the demon theory of St. Vitus' dance, just as Charcot, by his recent clinical illustrations and hypnotic neurotherapy, has dissipated certain misconceptions of clergy and laity in regard to certain historical beatific phases of catalepsy, hystero-epilepsy, hystero-catalepsy.

The law of the communicability of nervous diseases is not so well known as to be fully comprehended, but it is too well understood to be denied.

Mental influence, in the ordinary acceptation of the term, explains no more than the superstitious beliefs, of demonology, spiritualism, etc. Molecular movements of a morbid kind are excited within the organism of the individual pathologically impressed by the morbid conduct without, which if inhibition

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be unduly lowered repeat themselves. Certain reciprocal parts of the nervous system respond to these external impressions, just as certain parts within respond to light or sound impressions from without, and nervous diseases or a psycho-neural disease in one person is transmitted to another.

All nervous diseases are not thus communicable. All individuals are not thus susceptible. Neither are all organisms suitable soils for the bacillus of tuberculosis, of anthrax, of cholera, etc. HUGHES.

GLEDITSCHINED.

Some of our New York Ophthalmologists appear to have been caught knapping, and the profession has been hastily treated to wonderful accounts of the power of stenocarpine, or else Parke, Davis & Co., have been analyzing something that was not Goodman's Honey Locust Gleditchine but Lehn and Fink's Gleditchine.

We are anxious to learn definitdly whether Gleditschine triacanthos has the anesthetic property claimed for it or whether it is a Lehn and Fink compound of cocaine and atropine with a little honey locust juice thrown in. We await the final decision of the arbiters selected, and hope the Gleditchine sensation may not prove another cocaine lie, for cocaine has vitiated the moral atmosphere of medical circles enough already.

At present it looks as though Knapp, Claiborne, Jackson and others had been gleditschined und die gleditschine geschicte nicht fihl *Lehne* hat. HUGHES.

PROGRESS IN THE DIFFERENTIATION OF CHOREIC STATES.

The New York *Medical Record* of a recent date has a timely editorial on this subject, in which some pertinent and profitable facts in choreiform and choreiac symptomatic displays are stated. After referring to Maurice Lannois' valuable monograph on the different types of chorea, the *Record* analyses a still more recent, but not more original paper in the *Gazette des Hopitaux* by M. George Guinon, which it discusses, is practically an abstract from Lannois' work without credit.

Of Lannois' list of eighteen different affections which have been referred to as choreiform by various writers, the journal says:

Lannois gives a list of eighteen different affections which have been referred to as choreiform by various writers.

It is sufficient, however, for ordinary purposes to recognize three groups, viz., that of chorea-major; ordinary chorea, or chorea of Sydenham; and pseudo-chorea. Chorea-major is a name applied to certain hysterical and hypnotic affections, often of an epidemic character. Tarantism, the jumping-disease, and various rhythmical hysterical spasms come under this head. The ordinary type of chorea shows itself somewhat differently in children, in pregnant woman and in old people, etc., and is distinguished accordingly as chorea of Sydenham, paretic chorea, hereditary chorea, chorea of pregnancy, and chorea of old people.

The group of pseudo-choreas includes a number of different affections, some of which are often mistaken for chorea proper. Tic de salaam, or eclampsia natans, tic convulsif, and chorea of the larynx and of the diaphragm are instances of this kind. These disorders are generally chronic, and do not run a definite course. They are the evidence, as a rule, of some degeneration or neurotic taint, and must be looked upon, therefore, as decidedly distinct in their pathology from common chorea. Many of these cases are met with in general practice, among children and adults. They are generally regarded as suffering simply from chronic chorea of Sydenham, or perhaps simply as illustrations of bad nervous or mental habits.

We copy and underscore the above quotation in part to protest against the classification of chorea of the larynx, which is the chorister's and singer's chorea, as a pseudo-chorea or eclampsia natans.

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CORRESPONDENCE.

PARIS LETTER.

PARIS, DEC. 18, 1887.

EDITOR REVIEW.—Professor Cornil resumed his lectures on pathological anatomy before a select aud appreciative audience, in the large amphitheatre of the Faculté de Medecine. His particular aim is to describe the latest results that have been arrived at in the domain of pathological anatomy and to render these descriptions more instructive by ocular demonstrations, by projecting images of pathological preparations by means of the electric light. These succeed each other so rapidly that 30 or 40 of them are shown during the lecture. M. Cornil chose for the subject of his opening lecture *karyokinesis* and the necessity of the indirect division of the cells in the anatomo-pathological processes. He described the influence of indirect division in inflammatory phenomena; of bone medulla, of the liver, and kidney; in new formation;papillomas, epitheliomas, alveolar carcinomas. M. Carnil's recent studies on this subject render him particularly competent to treat it. All that he described he has seen and studied in person. His lectures are free from all hypothetical or oratorical amplifications. Once a week his pupils are admitted to the Practical School to examine the original preparations of which they have seen the drawings.

M. Cornil is using every endeavor to create an anatomo-pathological institution which may rival, if not excel those found elsewhere.

At the Hopital St. Louis M. Fournier began his series of lectures on syphilitic and cutaneous diseases, with a comprehensive description of the evolution of syphilis. M. Fournier asserted that syphilis never appears a second time. During the 27 years of his medical career he has never observed the appearance of an indurated chancre in a person who had previously suffered from syphilis. In describing the treatment of this disease,M. Fournier showed that it should be treated as a diathesis, by a continuous and persistent treatment, as in the case of gout or affections resulting from scrofulous temperament. Once a week M. Fournier gives clinical lectures by the bedside of the patients chosen to demonstrate his statements.

The proposition for transferring the instruction of accessory sciences (physics, medical chemistry and natural history) from the Facultié de Médecine to the Faculté des Sciences has lately formed the subject of active discussion. Considerable opposition has been met with on the part of the professors entrusted with this Instruction at the Faculte de Médecine. In his opening lecture of the season on medical physics, delivered here, Prof. Cariel protested against this proposition and trusted it would not be adopted. At the same time he admitted that the general instruction given to students at the Faculté de Médecine was far from being complete. He considers that students ought not to study physics before the second or third year, when they will have finished their anatomical and pathological studies. According to Prof. Gariel, medical physics only ought to be taught at the Faculté de Médecine. The other branches of the science shouid be thoroughly taught elsewhere. M. Gariel's first lectures was on the study of magnetism.

M. Budin, who has been chosen to occupy the chair of obstetrical clinic at the Faculté de Médecine, for the forthcoming year, delivered his opening lecture before a crowded audience. The subject of his lecture was the new organization of the confinement ward which has been temporarily confided to him at the Charite. M. Budin's system has the advantage of increasing the opportunities and facilities for medical students desirous of of gaining experience, without trenching upon those engaged by the midwives. Hitherto the patients were attended during their confinement by the students in the day, and by the midwives at night. This system had drawbacks for both the patient and the student, who was thus frequently interrupted in the middle of a case which he had followed with care and interest. By the new arrange-

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ment the students are present at confinements from Monday to Friday night; they are succeeded by the midwives who attend for the rest of the week.

The consultations for out door patients are held daily at half past three o'clock. The students assist at these consultations which offer considerable interest, and a variety of diagnoses.

Students desirous of undertaking or attending confinement cases are given every opportunity for doing so. Two students attend each case; one of these gives active assistance to the patient, and takes notes of the case in order to read them the following morning when the house surgeon goes his rounds. The second student is present at the confinement and also takes notes. The next case he takes charge of and delivers, while a new student assists at the operation. M. Budin, in providing for the advancement and instruction of the medical students is careful that every provision should be made for the care and safety of the patients. He recommends every student who is desirous of attending or examining women about to be delivered, to discontinue dissecting and studying anatomo-pathology, and thus avoid subjecting his patient to the danger of puerperal infection.

The number of students who have inscribed themselves as desirous of attending cases in M. Budin's ward, is sufficient proof that this new system of organization is appreciated.

The course of anatomical lectures in the large amphitheater at the Faculte de Medecine, is undertaken this year by M. Poirier, *agrege de la Faculte.* M. Poirier considers that the anatomical instruction given here should complete and at the same time furnish the synthesis of that given at the School of Anatomy. The topographical anatomy of the limbs will form the principal theme of M. Poirier's lectures this year.

In his opening lectures on medical zoology M. Blanchard, *agruge de la Facelte de Medecine,* alluded to the proposition for transferring the instruction of collateral sciences to the Faculte de Sciences. His opinion coincided with that of M. Gariel. M. Blanchard will treat of vegetable parasites, microbes and fungi in his lectures this year.

At the Clinical Asylum of St Anne, M. Magnan resumed his Sunday lectures on mental alienation. M. Magnan's inaugural lecture was devoted to the study of chronic delirium characterized by systematic evolution. Two patients furnished him with the opportunity of observing this pathological condition from the period of incubation, through all the phases presented by the second and third period of this affection. The clinical and experimental study of alcoholism will form the theme of M. Magnan's lectures this year.

M. Pozzi resumed his *cours de gynecologie* in the amphitheater at the Faculte de Medecine before a crowded audience. Dr. Pozzi's lectures are intended to give his hearers the elementary notions of gynecology, which will fit them to follow and thoroughly comprehend the lectures of the great gynecologists of the day. He pointed out the influence of antiseptic methods in the great progress recently achieved in gynecology, which from a purely medical science has, within the last few years, become a surgical one. Dr. Pozzi terminated his lecture with a description of different special antiseptic methods in gynecology, and the antiseptic measures to be taken by the operator with the instruments, and the patient operated on.

In his opening lecture on physiology, in the small amphitheater at the Ecole de Medecine, M. Reynier pointed out the close relationship of physiology with other medical sciences, but at the same time showed the special services rendered by physiology to all the branches of science, and its value in confirming truth or rectifying errors in hypotheses. Without condemning the practice of vivisection M. Reynier agrees with Prof. Beclard that observations made on human beings are of far greater value than those made on animals. M. Reynier concluded his lecture by citing Claude Bernard's words. "The progress that we desire to see achieved can only be

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brought about by the fruitful union of clinical science and physiology."

M. Duplay, in his first lecture on medical operations announced his intention of studying the diseases of the genital organs, and the operations on the abdomen in females. His lectures will have an eminently practical character, and he will only describe those operations which he considers from personal experience to be the most advisable.

The affections of the skull formed the subject of M. Lannelongue's opening lecture on External Pathology. Prof. Lannelongue described the origin and progress of the operation of trephining, which dates from the earliest ages. M. Lannelongue terminated his lecture by comparing the parallel progress of this operation and of the theory of cerebral localizations.

A Congress composed of physicians and veterinary surgeons, for the scientific study of tuberculosis in human beings and in animals will be held at the Ecole de Medecine from the 25th to the 31st of July 1888.

The following questions will be discussed.

I.—The dangers resulting from the use of the flesh and milk of tuberculous animals.

II.—The special aptitudes of certain human races and animal species for contracting tuberculosis.

III.—The manner in which the tuberculous virus is introduced and propagated in the system, and the prophylactic measures to be adopted.

IV.—The premature diagnosis of tuberculosis in human beings and in animals.

Besides the questions enumerated above the Congress will give special attention to the following.

The hereditary character of tuberculosis in human beings and animals, its transmission from one human being to another, or from an animal to a human being.

The different manners in which experimental tuberculosis is developed according to the quality and quantity of virus inoculated. The different characteristics of tuberculosis in different animal species. The means of distinguishing lesions produced by Koch's bacillus from the granulations and inflammation due to different microbes (zooglea bacteria of contagious pneumonia in pigs, aspergilli, etc.), to animal parasites, or foreign substances. Tuberculous lesions accompanied by other microbian lesions. The manner in which giant cells and tuberculous islets are formed. The evolution of local tuberculosis. The destructive agents of Koch's bacillus. Local and general methods of checking the spread of experimental tuberculosis. The action of surgical therapeutics in tuberculous affections.

All communications concerning the Congress should be addressed to Dr. Petit, general secretary, 11 Rue Monge, Paris.

Subscriptions to be sent to M. G. Masson, treasurer, 120 Boulevard St. Germain, Paris.

M. Troisier lately had in his wards a patient under treatment for saturnine intoxication, caused by the manipulation of chemical charcoal. (*Braise chemique.*) She was 30 years old, and had been employed for 22 months in a factory where this charcoal is prepared. Last November she was attacked with lead colic. In May she was seized with green vomiting. She entered M. Troisier's ward June 13. There was repeated bilious vomiting; pain in the epigastric region, complete anorexia, foul tongue, constipation which had lasted several days; the gums had a blue rim, especially about the incisive and canine teeth. The strength was considerably diminished, the skin was pale and yellowish, the mucous membranes were discolored; there was a constant *souffle*; the blood vessels of the neck were distended. There was tactile anesthesia and analgesia. The patient appeared unconscious of her right side. There was cephalalgia and insomnia. The temperature was normal; there was no albuminuria; the liver was normal. Different purgatives were administered, but defecation only took place four days afterwards. At the same time the vomiting and colic ceased, anesthesia disappeared; the patient left the hospital seventeen days after entering it. She furnished the following particulars: She was engaged with eight other women in packing up the chemical charcoal. The manipulation of this

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substance raises a quantity of dust, which penetrates into the respiratory and digestive passages. The women are usually obliged to abandon this occupation after two or three weeks, owing to the injurious effects it exercises on the health.

M. Henriot has analyzed a piece of chemically prepared charcoal. It was found to contain 6 per cent of nitrate of lead. Ten grammes of charcoal are required to light a fire. M. Troisier proposes that an alkaline nitrate should be substituted for lead nitrate in the preparation of this charcoal. It answers the same purpose and it is perfectly harmless.

The following fact may suggest a new medical use for photography. A lady, on whose face no spot or pimple was discernible, was lately photographed. On examining the proof, the photographer was surprised to find the face was covered with black specks. A second photograph was taken with the same results. The following day the lady died of smallpox. The superior sensibility of the plate revealed what was invisible to the naked eye.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting Dec. 10, 1887. The president, S. Pollak, M. D. in the chair. F. D. Mooney M. D. Secretary.

Dr. H. C. Dalton presented a case: This young man, 18 years of age, on the 15th of last April, while underneath a car painting its trucks, the train started, catching his right foot between the trucks and the crosstie, breaking the femur in its lower fifth and causing a compound fracture of the tibia and fibula. The fracture of the femur was very oblique, the lower portion of the upper fragment projecting into the popliteal space almost through the skin. Shortly after his entrance, Dr. Meisenbach called and gave me this bone, which, he said, was found at the place at which he was injured. It is a portion of the tibia, three inches in length involving the entire caliber of the bone. The unique feature about it is that such a large piece of bone was torn out leaving the periosteum *in situ*. The wound, which was filthy, was treated antiseptically, and healed by first intention. The leg was put in a plaster of Paris splint, leaving a window at the site of fracture. The whole limb was then placed in a Hodgen splint, where it remained two and a half months. As you will see, the absent bone was entirely reformed, making the limb almost as strong as before. The ankle joint was considerably stiffened from disuse, but motion and massage have improved it a great deal.

Dr. A. H. Meisenbach.—I happened to have the fortune, to see the patient within a half hour after the accident. There was a large gaping wound at the site of the scar, four inches long, and I found a very ugly oblique fracture of the lower end of the femur one and a half inches above the condyles. The lower end of the upper segment was so sharp and projected so much into the popliteal space, that I was afraid that it might injure the artery. Without putting my fingers into the wound, I placed on the limb a safety splint and ordered him to the hospital. Afterwards some one in looking over the site of the accident, found this bone and gave it to me. A very interesting point about this is that the accident should occur in such a manner as to completely pull off the periosteum and leave it in situ. If that had not occurred the aspect of the case would probably be very different. But the periosteum being left with the blood vessels that supplied it, gave a nucleus for the reformation of that bone which was missing. The question arises surgically, supposing that periosteum had not been left in situ, could the bone have reformed there? I think, according to the general knowledge on the subject, it would not have formed, although I have heard it stated that periosteum is not necessary for the formation of bone. There is another question: Supposing that the periosteum had not been in place, what should have been done, an amputation of the leg, or allow nature to perform her work imperfectly and leave a weakened member there? No, I think it would have been an advisable plan to have resected the tibia and fibula wiring them together and shortening the limb. That might have been done even if the leg had been in a dressing, if the bone had not been reformed. This would be vastly superior of course to an artificial limb. Some time ago, the procedure would have been to amputate, but since the knowledge of antiseptics and of repair of bone has reached its present status, things are attempted now that were never dreamed of before. I would here also call attention to the fact that the first care of the wound may have

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great influence on the future of the case. Supposing this young man had fallen into careless hands; that upper fragment might have penetrated the popliteal artery, necessitating an amputation.

DR. H. C. FAIRBROTHER.—I wish to show an accumulation of one ounce or so of diphtheritic membrane, vomited up to-day, following a big drink of whiskey, by a child eight years old. He seems better now every way. It demonstrates to me the uselessness of applications to the throat. This child had been sick about one week with the ordinary type of diphtheria. Following my usual course I gave bichloride of mercury with salicylic acid applications, and plenty of whisky. He had sat up in bed, the diphtheritic membranes had practically disappeared, but would recur again on the point of the uvula and on the epiglottis, but all the time a heavily furred tongue showed that the enemy was lurking near. He was seized suddenly to-day, and appeared to be dying, but began vomiting and this is part of the ejecta. At first many of the pieces were circular, others crescentic, clearly marked casts from the upper trochea and probably from the upper part of the œsophagus. I could see clearly about the mouth of the esophagus, the protruding edges of the diphtheritic membranes.

DR. C. O. CURTMAN read a paper on "Ptomaines."

DR. L. BREMER.—I haven't much experience with ptomaines, except that of some experiments which I made several years ago. I observed that whenever an infusion, such as of hay, was exposed to the atmospheric air, it would have poisonous products. I injected some of the infusion into a rabbit and there were all the symptoms of tetanus, and the animal died twenty-four hours later. The peculiar reaction of hydrochloric acid on cholera cultures is so marked that hydrochloric acid is tested by it; it will produce a decided red color, such as is not produced by the acid in any other kind of bacteria. It is this action that produces the toxic symptoms in cholera.

DR. WM. DICKINSON read a paper on "Ptomaines."

DR. T. F. PREWITT.—We are all struck with bewilderment at the number of names of these ptomaines, and with the endless variety. It would seem that any sort of vegetable decomposition would produce its own variety of these ptomaines; and that these agencies are not even destroyed by cooking the food, since in the case of the cow, the meat was cooked, and yet the parties suffered. But the point of especial interest is the fact that they have been able to isolate the cause of tetanus, as a distinct substance, tetanine. I have long believed that it was due to a specific poison and not an irritant to the nerves.

DR. CURTMAN.—In explanation of some of the remarks that have been made, especially in regard to cooking of the food helping its healthfulness;—the bacteria may be destroyed by high temperatures, and yet their poisonous chemical products still remain. If the cooking had been done before, it would prevent the poisonous influence by killing the supply.

In putrefaction where there were only products of putrefactive bacteria, the poisonous ptomaines do not arrive until a later date when the poisonous ptomaines develop from the putrefactive bacteria. In dissecting wounds, poisons develop after death, which shows that it will produce similar products in the living body as it does in the dead one. If the bacteria live long enough to produce a sufficient quantity of ptomaines, all the agencies for destroying the poison are insufficient to prevent the effect.

DR. PREWITT.—I understand you to say that immediately after death, dissecting wounds are exceedingly poisonous, and yet it is after this latter period that these poisonous ptomaines are produced?

DR. CURTMAN.—They are only produced at the latter period, but the bacteria are already produced and their poisonous properties are still alive.

DR. BREMER.—I wish to take issue with Dr. Curtman. He made the assertion that cooking affects bacteria, but does not affect the poisonous substances which they secrete.

DR. CURTMAN.—Changes of temperature that are sufficient to kill bacteria do not always kill the chemical substances. Of course it may be a volatile substance, but generally it is of such stability that the degrees of temperature will not have any effect on them.

DR. BREMER.—Cooking certainly does have the power of destroying these substances; high-game is an instance of this. In that the ptomaines are certainly destroyed by the cooking.

DR. CURTMAN.—I grant that there are a number of them—those that are volatile—but there are a number of them, true alkaloids, that are not destroyed.

The cause of that condition known as tetanus is proved by the constant existence of a bacillus, which when reinoculated on an animal, will again produce this disease, so this disease is certainly due to a bacillus. I have not seen the poison, but I have seen the bacteria and the effect produced by them. I have seen animals inoculated by the bacillus and they were the clearest cases of tetanus I ever

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saw. Besides it is known that tetanus occurs especially in hospitals. This proves the infectious nature of the disease. The bacillus grows in the nerves, not in the circulation, the same as the microbe of hydrophobia. It is only by understanding the production of the ptomaines that we can form an adequate idea of the *rationale* of the fever in tetanus. The ptomaines have a reducing property on the body; whenever there is chemical decomposition, there are certain thermo-chemical laws that regulate the process, the more active the decomposition, the greater will be the heat.

DR. G. J. ENGELMANN.—Which is the more deleterious to the system, the introduction of the bacteria or the chemical poison.

DR. CURTMAN.—The bacteria that are ingrafted in the tissue will reproduce the poison there that they would produce in the dead body—or at least most of them will—for the live tissue will yield just as much as dead tissue; hence the introduction of the poison-producer is the deleterious thing. The poison itself, if introduced in such small quantity, must be a very virulent one to produce a full effect at once, while the bacteria will multiply and produce large quantities of this poison. The action of these ptomaines on the body has only been studied by means of small injections and not by introduction of larger quantitiesin the stomach excepting in such cases that are forced upon us by poisoning with butter, cheese, etc. And it has not been studied experimentally sufficiently to tell whether there is a trauma of the stomach, or the poison can be absorbed enough to produce the effects.

DR. C. H. HUGHES.—The leucomaines are more interesting than the ptomaines. I would like to inquire what study Dr. Curtman has given to this subject?

DR. CURTMAN.—The leucomaines have been especially studied by Gautier, and they are products of metamorphosis of tissue during the normal life process. They are changes of the different albuminoids of the body; they are especially creatine and creatinine, and they are not poisonous like ptomaines, and are normal products. Still by being isolated and then exposing them to the action of the atmosphere they may become poisonous.

DR. HUGHES.—Dr. Prewitt seems extremely anxious to get rid of the nervous system as a factor in the production of morbid symptomatology of tetanus. I don't think he has succeeded in getting rid of the nervous motor centers as a source of irritation.

DR. PREWITT.—I had not the slightest idea of obliterating the nervous system, and I would not if I could, if only for the sake of my friend, Dr. Hughes, because we would then have to repeat in the most melancholy way, "Othello's occupation is gone!"

SELECTIONS.

THE CROWN PRINCE'S CASE.

Sir Morrell Mackenzie's report, from the time of his visit to England until his arrival at San Remo.

After the removal of the growth last summer, and the subsequent application of electrocautery, no recurrence of the growth took place. Some general congestion of the larynx remained, and whilst His Imperial Highness was in the Isle of Wight a slight thickening of the mucous membrane on the posterior surface of the arytenoid cartilages near their base was observed by Dr. Norris Wolfenden, at that time in daily attendance on the Crown Prince. At one of my weekly visits I verified Dr. Wolfenden's report, and perceived that the thickening presented the form of a ridge raised to the extent of about a millimeter, of yellowish color, and extending horizontally from the outer border of one cartilage to that of the other. The action of the left vocal cord, which had been noticed in Berlin to be slightly impaired, continued in the same state. It should perhaps be here mentioned that soon after His Imperial Highness arrived in England a marked disposition to catarrhal inflammation of the larynx and trachea, or fugitive congestion, was observed. A rather sharp attack occurred in the Isle of Wight, and this was followed by general relaxation of the mucous membrane of both the pharynx and larynx.

The congestion disappeared whilst the Crown Prince was in the Highlands; and during this period the thickening at the base of the arytenoid cartilages already described was absorbed. On the return of His Imperial Highness to London, the condition of the larynx was on the whole satisfactory; the movement of the left vocal cord was much more free, and the voice strong, though not quite clear, owing to a slight increase in the congestion having taken place on leaving Braemar. The Crown Prince's general health was excellent.

On September 9, a slight thickening was noticed on the posterior extremity of the left vocal cord, which increased for a few days, and then gradually disappeared, being on the 18th, no longer visible. For a few days pre-

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vious to the development of this thickening, the larynx generally had again been more congested. On September 13, Dr. Evans, of Paris, extracted the Crown Prince's left lower second molar tooth, which was much decayed, the fangs showing the result of a considerable amount of periostitis.

On September 14, an oblong thickening of the mucous membrane, about five millimeters in length and three in width, was observed by Mr. Mark Hovell nearly half an inch below the middle of the left vocal cord and parallel with its free border. Mr. Hovell states that this swelling gradually increased in size, and when seen by me on September 22, it was nearly round, and measured rather more than half a centimeter in diameter. Two days later the Crown Prince took cold, and on the following day complained of a sense of fatigue, disinclination to take food, and great sleepiness in the daytime. On examining his throat, the left aryepiglottic fold was found to be edematous. His temperature was 101° F. In twenty-four hours the edema had entirely disappeared, and the temperature had become normal. Although the edema was apparently due to cold, the possibility of its being caused by limited perichondritis was discussed at the time. The acute swelling had no apparent effect on the little thickening below the left vocal cord, which gradually became smaller, but did not entirely disappear.

The Crown Prince continued to enjoy good health after his arrival at Baveno, and when I left Italy everything appeared satisfactory, though slight general congestion remained, as well as the thickening referred to previously. On the evening of October 17, Mr. Mark Hovell noticed a marked increase in the congestion of the larynx, both vocal cords being of a bright red color. During the next few days the congestion decreased; but on the 21, the hyperemia again increased in intensity and was more diffused. On the 27, an increase was noticed in the size of the thickened surface beneath the left vocal cord, and at the same time slight general tumefaction of the left side of the larynx appeared. During the next few days the thickened surface slightly increased and on the 31, the surface was seen to be irregular, and in one place there was a distinct spur or projection. The next day superficial ulceration of the new formation was noticed, and the left vocal cord was seen to be slightly swollen along its free edge. On the 28, the voice of His Imperial Highness was quite clear; and, indeed, in the opinion of the Crown Princess, was perfectly natural, but since this date the Crown Prince has been much more hoarse. On October 30, a slight reddish projection was noticed beneath the *right* vocal cord; this remained stationary for two or three days, then disappeared, and formed again on November 5. On November 1, a slight enlargement of the left submaxillary gland was noticed, and this subsequently increased in size.

On November 3 the new formation had further enlarged, and was now rather more than a centimeter in diameter, and raised to the extent of about four millimeters. The extension of the growth since it was first seen had always been upwards. On the morning of the 4, a very slight edema was noticed at the base of the left artenoid cartilage, which disappeared in the evening, and was again present on the morning of the 5.

On the following day I arrived, and found the state of the larynx such as Mr. Hovell had described to me. On the afternoon of the 8, intense edema of the mucous membrane covering the left arytenoid cartilage was noticed, and in the evening the edema involved the entire fold, which was tense and red. On November 9, the patient was examined by Professor Schroetter and Dr. Krause, but, owing to the edema, it was impossible to obtain a complete view of the new formation at the lower part of the larynx. On November 10, the patient was again examined by the same physicians, and also by Dr. Moritz Schmidt; the edema was already much diminished, and a good view could be obtained of the whole larynx.

In my opinion, the edema is due to limited perichondritis, which in its turn has probably been set up by the growths which have been formed from time to time in the larynx. Although the nature of the growth which has lately appeared has not been determined by microscopic examination, it presents every appearance of cancer.

The above report is published by the wish of His Imperial Highness the Crown Prince of Germany. A copy of it was sent to the *Berliner Klinische Wochenschrift* on Monday. —*Brit. Med. Jour.*

THE SURGICAL TREATMENT OF PERITONITIS.

The propriety and value of surgical intervention in the treatment of certain forms of peritonitis formed the main subject discussed at the last meeting of the Clinical Society. The cases which gave rise to the debate belonged to two different categories, and perhaps, for that reason the discussion was rather in-

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volved. It may therefore be convenient to analyze it on each head. In his successful case of acute suppurative peritonitis, Mr. Barwell was pursuing the practice which was brought before the notice of the Royal Medical and Chirurgical Society by Mr. Treves and Mr. Marsh two years ago, giving rise to an interesting debate on the occasion. For although, as Mr. Barwel said, thel priority in conception of this procedure rests with the late Mr. Hancock, the operation itself with the deliberate intent of treating the peritoneal condition was first performed by Mr. Treves. It may now be considered not only a legitimate but a very valuablemeans of treatment, and one which is sure to become more widely practiced. Mr. Barwell's case was also instructive, as the President pointed out, on account of the large accumulation of gas present within the abdominal cavity; which makes it more than likely that the peritonitis had been excited by a perforation of the bowel, perhaps of the vermiform appendix. General peritonitis due to perforation is almost invariably fatal, so that physicians may be justified in having early recourse to the aid of the surgeon, who by incision and drainage can promise a more favorable issue. As to the *techniqus* of the operation, nothing can be simpler, and it was clearly shown that no better medium for washing out the cavity could be employed than pure water, provided this were supplied in sufficient amount, and the irrigation were as thorough as possible. At the Clinical Society more attention was bestowed upon the subject of tubercular peritonitis, the two cases furnished by Dr. Knaggs and Mr. Clarke of Huddersfield forming the chief topic of the debate. Here we may remark how deep-rooted is the notion that tubercular disease of a serous membrane like the peritoneum is necessarily fatal, and the impression conveyed by Dr. Burney Yeo's questions was certainly to that effect. We may refer all those who still hold to this opinion to a clinical lecture on Tubercular Peritonitis in Children, by Dr. Gee, published in this journal six years ago (*The Lancet*, Jan. 1st, 1881), and his statement that "recovery from tubercular peritonitis is common" will be endorsed by physicians who practise in children's diseases. In adults cases of recovery from this disease are less common, but Sir Spencer Well's celebrated case is a standing refutation of the prevalent pessimistic views which would regard tubercular peritonitis as being as hopeless as cancerous. The debate, however, did good service not only in correcting this impression, but in showing how materially recovery is aided by draining the cavity of its contained fluid. Here, again, a lesson may be learnt from the practice often adopted in the case of children with considerable success—viz., simple paracentesis. Whether irrigation and continuous drainage is superior to paracentesis, which may have to be repeated, experience alone will show; but that the essential thing is to withdraw the fluid so as to allow the affected serous surfaces to come into contact was strikingly brought out in the report which Mr. Treves gave of the recently recorded experience of German surgeons. The measure of success obtained did not seem influenced by the adoption of varions methods; the essential point was that the peritoneal sac should be laid open. It would thus appear (as was suggested in the debate) as if the effused fluid were itself a source of danger; but that it is absolutely necessary to "alter the character of the inflammation" by the injection of iodine, carbolic acid, or other irritants is still an open question. Dr. Knaggs and Mr. Clarke are to be congratulated on the result of their bold treatment, which may well be adopted in similar cases uncomplicated by active tubercular disease of the lung or ulceration of intestines. Such cases in the adult are not so very common, and their diagnosis is not always simple; but that the local tubercular process may be quite arrested and the general condition of the patient vastly improved by local drainage (aided of course, as Mr. Parker pointed out, by general treatment) have been amply shown.—*Lancet.*

POSTURE FOR SLEEP AND POSTURE IN SLEEP.

It would seem on the first blush of the matter that the posture for—that is, to favor—sleep must be generally the same as that voluntarily or instinctively assumed during sleep, but a little consideration will make it apparent that this is not correct. It may be granted that, supposing a person to be sleeping lightly and uncomfortably, the posture will be changed half-consciously to one of comfort. It would be more correct to say that it is changed in the endeavor to avoid distress or discomfort; but even the fact that sleep is quieter in the new position will not suffie to prove that this is a better one, because the sleep may meanwhile have become deeper. It is, on the whole, impossible to ascertain either by experience or observation which is the posture most conducive to sleep, and attempts to lay down rules for the guidance of bad sleepers are always arbitrary, generally

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empirical, and rarely of any practical value. Those who think "anæmia of the cerebrum" is the cause of sleep, and those who think that though not the cause, a diminution in the quantity of blood in the vessels of the encephalon is a necessary concomitant of sleep, prefer, and recommend, that the head should be higher than the feet; while those who adopt the opposite view, and think passive congestion causes or promotes somnolence, would have the feet raised and the head lowered. The confounding of stuper with sleep may and probably has, something to do with these differences of opinion. Meanwhile a common-sense view of the subject would conclude that, as there is evidently some change in the blood state when the brain falls asleep, the best plan must seem to be to place the body in such position that the flow of blood through the vessels of the head and neck may be especially easy and free. The way to secure this is to allow the head to lie in a posture and on a level that cannot offer any obstacle to the free return of blood through the veins of the neck, and does not tend to make the blood flow specially in any particular direction, leaves Nature at liberty to act as she will.—*Lancet*

ON THE USE OF DRAINAGE-TUBES.

In the discussion following a paper on amputation of the thigh for sarcoma, read by Dr. Bell before the Montreal Medico-Chirugical Society, Dr. Reddick said, in regard to the use of bone-drains, that some years ago he had used them extensively, but had given them up. Recently he had tried them again, but he found that they absorbed too rapidly, and that, although the drain was absorbed and the wound closed up, still there was often a collection of fluid left behind, which had to be let out.

Dr. Shepherd had also, several years ago, used bone-drains, but had abandoned them because of their uncertainty, some absorbing too rapidly and others not at all. He preferred rubber drains. His plan was to change the dressing twenty-four hours after operation, remove and shorten tubes to less than half an inch, and then not make the second dressing for a week or ten days, according as the case progressed. The reason he examines the wound and removes the tube at the end of twenty-four hours, is because the oozing from the wound is greatest during the first day, and also because the tube not infrequently becomes plugged with blood-clots, and this, of course, renders it useless. He had had remarkably good results in his amputations by this method, and mentioned a case of amputation of the thigh performed in a very old man, for senile gangrene, which healed by two dressings in three weeks. Neuber, who introduced bone-drains, now never employs any drain at all, but stuffs the wound with iodoform gauze for two or three days, and then makes use of secondary suture. His results, according to his published cases, were excellent.

Dr. Armstrong inquired whether any of the surgeons had used Levis' solid rubber drains. They consist of a number of pieces of solid rubber rods placed like catgut in the wound, and are better than hollow tubes, as they never get plugged with blood-clot.—*Med. News.*

LAWSON (G. L. L.). A SUGGESTION WHY PNEUMONIA AND PTHISIS SELECT DIFFERENT LOCALITIES IN THE LUNG.

The vertical distance between apex and base in the adult is about twelve inches, more or less. The external atmosphere has equal access to both apex and base.

The sp. gr. of blood is 1055, therefore the difference between blood pressure from gravity on the capillaries of the base and those of the apex is about half a pound on each square inch of surface.

The difference in the counteracting pressure of the atmosphere is practically nil. The greater blood preasure on the base being counteracted by (1), greater tone of the sympathetic and pneumogastric nerves, leading ultimately to (2), an increase in the strength of the parenchyma. Therefore the greater blood pressure in the base is practically counteracted by increased nerve tension. From this it follows that if a susceptible person be exposed to a chill or cold prolonged enough to incite pneumonia, the nervous tone is lost, the pulmonary branches of the sympathetic relax equally; the capillaries of the base, having to sustain a greater blood pressure than those of the apex, are less able to withstand the increased rush of blood, consequently they dilate; their tone being lost and their resistance overcome they are unable to react, and then we have congestion, perhaps proceeding to inflammation. As the lower part becomes congested and the passage of blood through it becomes impeded, the capillaries on a higher level are successively congested. Thus it spreads upwards until the inflammation runs its course, or there is sufficient

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tone in the vaso-constrictors to prevent its further progress. The right base is more often attacked than the left. Fagge says "the right lung is more often the seat of inflammation than the left, the proportion being about five to three." Now the right apex extends higher than the left. The right lung as a whole is higher than the left, but at the back part of the base they are practically on the same level, therefore there is a greater blood pressure on the right base, or the pressure being equal, the right base being larger than the left also accounts for it. Again, in hypostatic pneumonia supervening on other complaints, the most dependent part of the lung is attacked, because there is loss of blood in the vaso constrictors and the blood pressure is greatest in the back, which, in this case, is the lowest part of the chest. Here I have spoken of pneumonia as an inflammation of the lungs, and have not discussed the origin of the inflammation, but simply the cause of its selecting a special site.

In phthisis this apex is primarily affected. It is not from any inability of this part of the lung to expand and receive its proper supply of air, otherwise we would find other corners and edges of the long equally subject to phthisis.

Tanner says the left apex is usually affected. The right apex is higher than the left, and the right should be oftener attacked; but here the beneficial effects of exercise are plainly demonstrated. The right area being exercised more than the left, and both lungs being equally subject, this continual exercise will more than fully counteract any slight predisposition there might otherwise be in the right apex.

No doubt in some men the vesicles in the apices do collapse, but not from inability of the air to fill them. The blood pressure here is less than in the base, the circulation flags; as a result of this the vesicles collapse, there is a diminution in the nerve force, blood pressure, and also in nourishment. The capillary walls not being so braced up, as it were, collapse, and are less able to withstand the attack of any debilidating complaint.—*Analectic.*

METHOD OF DETECTING AND REMOVING NEEDLES EMBEDDED IN THE TISSUES.

1. The part supposed to contain the needle is thoroughly rubbed over with an electro-magnet, so as to magnetize the metal if present. 2. A delicately balanced magnetic needle is held over the part. If the needle is present, its position can be ascertained by the attraction or repulsion of the poles of the magnetic needle. 3. Having ascertained the presence of a needle, the part is rendered bloodless, and a grain or more of cocaine is injected hypodermically. 4. An incision is made over the ascertained position of the needle. 5. The electro-magnet is then inserted into the wound, and with it the needle is felt for.

Sometimes it will be found and removed quite easily, at others great difficulty will be experiteced, taking as long as one half or three quarters of an hour. This may be due to the fact that its position has not been accurately ascertained; it may be lying across the incision, or it may be so firmly embedded in the tissues that the electro-magnet is not able to withdraw it. If this occurs the incision must be enlarged, and the edges held apart by some non-magnetic retractors; using the electro-magnet as a guide, the needle may be seen and removed with forceps. If the needle is firmly fixed, the following plan has been adopted: by placing the positive pole of a galvanic battery on the surface of the body and the negative pole in direct contact with the needle, this becomes loosened by electrolysis, and can be easily removed by the electro-magnet. This latter method has been found useful in two cases for the removal of sewing machine needles that had transfixed the end of the finger, and were so firmly fixed as not to be removable by forceps. The electrolytic action loosened the needles so that they could be removed quite easily

I have now removed six needles from the hand and a piece of steel embedded in the foot. In none of the cases could I feel the piece of metal or be sure of its presence without the aid of the method above described. As it requires some expensive apparatus, and sometimes takes a long time, I am afraid this method will not become general; but it is well worth the time and trouble spent if in the end one is successful; as patients really suffer a good deal of pain and anxiety if these foreign bodies are allowed to remain embedded in the tissues.—*Med. Anal.*

DYSPEPSIA.

Loss of Appetite.—When this exists, there is generally more or less atony of the gastric mucous membrane, in which condition the vegetable bitters are useful: ℞. Pulv. cascarillæ ʒj; pulv. rad. rhei. gr. xv; pul. calumbæ, ʒs

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M ft. pil. No. L. Sig.—5 three times a day. (Ewald).

Not infrequently an aromatic is happily combined with the bitter, inasmuch as it is more stimulating though also more evanescent in its action: ℞. Tinct. cinnam., ♏xxxvi; pulv. rad. calumbæ, gr. cviij. M. Div. in pulv. No. xii. (Ewald).

Sometimes it is best to guard against the irritant properties of bitter drugs. This may be done by combining a small quantity of morphia with the prescription. The following formula is also useful when loss of appetite is combined with a tendency to cramps: ℞. Morph. acetat., gr. iss; tr. gentianæ, tr. calumbæ, tr. quassiæ, tr. cort. querc., aa f ʒ vj. M. Sig.—Teaspoonful several times a day. (Graves).

Excessive Acidity.—As stated in the previous number of the *Reporter*, this may be relieved by acids before meals or alkalies after meals (Ringer). The following formula will be found of service: ℞. Potassii bicarb., gr. xc; cort. aurantii, gr. xlv. M. Div. in pulv. No. x. Take one powder in sweetened water three times a day.

℞. Sodii nitratis, ʒ ij; bismuthi subnit, gr. xv; gummatis arab. ʒ ss; aq. destil, f ʒ vij. M. Sig.—Teaspoonful every four hours (Ewald).

If constipation also exists, the following may be used: ℞. Inf. rad. rhei, f ʒ iss. In this cold dissolve: Sodii bicarb, gr. cl; syr. aurantii cort, f ʒ vj. M. Teaspoonful twice daily. (Ewald).

Or: ℞. Calcii carb. præcip, gr. cxxxv; magnesii carb, gr. xc; sem. myristicæ pulv, gr. vij; sacch. alb, ʒ iss; gummatis arab, gr. xlv, aq. destil., q. s. Fiant trochees No. xx. Part of one may be taken several times a day. (Ewald).

Or: ℞. Inf. rad. rhei, f ʒ iv—f ʒ vss; sodii bicarb., gr. lxxv; ol. menth. pip. ♏ iv; syr. aurantii cort, f ʒ vj. M Sig.—Tablespoonful every two hours when there is gastric and intestinal catarrh. (Ewald).

Flatulence.—When this is due to fermentation, creosote and carbolic acid are useful: ℞. Creosoti, gr. iij; aq. flor. aurant., f ʒ j–f ʒ vij; tr. ferri chl., ætheris, syr. aurantii cort, aa f ʒ ss. M. Sig.—Teaspoonful every two hours. (Ewald),

℞. Acid carbol., gr. xv; pulv. rad. rhei, gr. lxxv; mucil. gummatis arab. q. s. M Div. in pil. no L. Sig.—One three times a day. (Ewald).

When flatulence is the result of insufficient gastric juice: ℞. Acid hydrochlor., ♏ lxxv; aq. menth. pip. fl ʒ jss–fl ʒ ss; syr. aurant. cort. fl ʒ vj. M. Sig.—One-half teaspoonful in water after each meal.

℞. Acid. hydrochlor., fl ʒ v; aq. destil, syr. zingib. aa, fl ʒ ss. M. Sig.—Ten drops in water after meals. (Ewald),

Charcoal is often valuable in flatulence associated with a cidity: ℞. Pulv. carb. lig., ʒ vj.lig. quassiæ, magnesiæ carb., aa ʒ j. M. Teaspoonful several times daily. (Ewald).

℞. Pulv. carb. lig., sodii bicarb., oleosacch. menth. pip. aa gr. vijss. M. Ft. pulv. Take ½ hour after every meal. (Ewald).

℞. Pulv. carb, lig., gr. vj; acid salicyl., gr. jss. Put in capsules No. x. Take ½ hour after meals. (Ewald).

Slowness of Digestion.—In a large number of cases of dyspepsia, food after entering the stomach seems to the patient to lie there like a dead weight. Sometimes after remaining a while in the stomach, it is regurgitated in a nearly unaltered condition; or in other cases digestion proceeds so slowly that gases form, resulting in flatulence, eructations and colicky pains. It is in these cases that pepsin and, if the dyspepsia be intestinal, pancreatin, are of great value. A number of useful formulæ will be here appended: B. Pepsin. sacch., gr. lxxv; strychninæ, gr. 1—13, sacch. lactis, gr. cl. M, Div. in pulv. No. x. Sig.—No. j.

℞. Acid. hydrochlor. ♏ cl; aquæ menth. pip., aquæ destil, aa fl ʒ j. fl ʒ jvss. M. Sig.—No. ij. Dissolve one of the powders in a glass of water and place in it a teaspoonful of No. ij. To be taken ½ hour after meals. (Ewald).

℞. Pepsin, gr. xxx; acid. salicyl, gr. vijss; glycerine, f ʒ j. ʒ ivss; tinct. calami, ♏ cl. Sig.—Teaspoonful dose. (Ewald).

℞. Pepsin, gr. cl; pancreatin, gr. cxiv; sacch. lactis, ʒ j ʒ jvss, ext. malti, gr. lxxv; acid. lacti, gr. xxxviij, acid. hydrochlor. dil ♏ cl; glycerini, ʒ v; tragacanth, q. s. M. Div. in ten pill masses. (Lactopepsin). (Ewald).

℞. Pepsin, gr. lxxv; acid hydrochlor., ♏ vijss. Rub together exactly; ext gentianæ, q. s. M. Ft. pil. No. L. One pill several times a day. (Ewald).

℞. Pepsin, gr. xxxviij; acid lactic, gr, iij; amyli, gr. xl. M. Ft. pul. No. v. To be taken an hour after meals when there is too little acid in the stomach. (Corvisart).

℞. Pepsin, gr. lxxv. morph. hydrochlor., gr. 1—6; amyli, gr. xc. M. Div. in pulv. No. xv. In increased irritability of the gastric mucous membrane. (Corvisart).

The following formula is also useful, though without pepsin, in the so-called atonic dyspepsias: ℞. Inf. rad. rhei, fl ʒ jv—flʒ vss;

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elixir aurantii, ♏ lxxv; syrup, ♏ iv; sp. æth. nit., ♏ vijss. M. Sig.—Tablespoonful every half hour. (Ewald).—*Med. and Surg. Report.*

THE CONVERSION OF BENIGN GROWTHS OF THE LARYNX INTO MALIGNANT.

At the recent Congress of German Naturalists and Physicians, Professor Schnitzler read a paper upon the subject of the Malignant Degeneration of Benign Growths in the Larynx. He first described a case of epithelial carcinoma with secondary growths in the lymphatic glands and pleura, in a patient who some months previously had been operated on for papillomata, the recurrence of which had been treated by cauterization. The patient subsequently came under Professor Schnitzler's care with symptoms of perichondritis; but the carcinomatous nature of the disease was recognized, and the supervention of pleurisy some weeks later was considered to be due to a diffusion of the malignant disease. The diagnosis was confirmed after death, when, besides the laryngeal and pleural carcinoma, there were found necrosis of the thyroid cartilage and gangrene of the right lung. Professor Schnitzler remarked upon the rarity with which benign tumors take on malignant characters, he having seen such conversion only three times among hundreds of cases of laryngeal papillomata. He left undetermined the question whether the operations and frequent cauterizations induced the malignant disease, and said that endo-laryngeal operations upon papillomata should be discountenanced on this ground. He also spoke of the difficulty in the differential diagnosis between benign and malignant growths, as well as between laryngeal syphilis and carcinoma. Dr. Morelli related the case of a man whose larynx was so blocked by papillomatous growths as to necessitate tracheotomy prior to a thyrotomy, with complete ablation of the new growth and galvano-cauterization of the laryngeal wound. The patient left apparently cured, but wearing the tube. After the lapse of a year be returned with evident carcinomatous degeneration of the papilloma, which filled the larynx to the level of the tube, which was partially displaced and blocked by it. This was the only case of the kind that Dr. Morelli could recall within a period of nearly ten years. Dr. Seifert referred to a case published by Boehmer, where papillomata (histologically examined) had been treated by Professor Gerhardt and himself for a year, but which passed into carcinoma, for which extirpation of the larynx was practiced; but the patient did not long survive the operation.—*Lancet.*

PROFESSOR KREMIANSKI'S ANILINE TREATMENT OF PHTHISIS.

Professor Kremianski, who it may be remembered (see *The Lancet*, March, 15, 1887), proposed, at the Moscow Congress of Russian medical practitioners held at the beginning of the present year, to treat phthisis by means of aniline, and whose views were generally condemned at the time, has just published a long letter complaining bitterly that he has been misrepresented and misunderstood, and that the most influential medical journals in Russia have refused to admit papers by various observers which contained favorable reports of trials made of the treatment, while prominence has been persistently given to all unfavorable and unsuccessful cases. Again, it seems that the bactericide treatment by no means consists merely of aniline inhalations, but that many other substances are employed either in conjunction with aniline or without it. The detailed description of the treatment is set forth in Professor Kremianski's book, and apparently has not been at all accurately reported in any of the better known Russian journals. He is anxious to point out that some observations which have recently been published on the action of aniline in large doses on the lower animals do not really militate against his views, because he never proposed that more than very minute doses of aniline should be given. He is quite prepared to admit that his plan of treatment is as yet very imperfect, and that it requires much more elaboration; but he insists that his later experience only goes to confirm his beliefe in its value, and numbers of brother prantitioners who have tried it fairly, have obtained good results. He expresses his regret that he has as yet been unable to make arrangements for publishing his book in some language more accessible than Russian to the majority of foreign medical men, from many of whom he has, he says, received inquiries about his system.—*Lancet.*

CAUSE AND EFFECT OF EXCESS OF FAT IN HUMAN MILK.

Dr. Zaleski of Dorpat publishes a case in the *Vratch* which bears out the well-known doctrine that a peasant wet-nurse should not

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be made to change her habits and her food for those customary among persons belonging to the wealthier class of society. A baby four months old was brought to Dr. Zalèski with a history of diarrhea and an emaciated appearance. The wet-nurse, a peasant woman, who had been accustomed to live on black bread, potatoes, and very small quantities of milk and cheese, with no alcoholic liquor, was suddenly promoted to a rich and highly nitrogenous diet, consisting of quantities of meat and eggs, with at least two bottles of beer a day. Samples of the milk were analyzed. By Dr .Zaléski's advice her diet was changed so as more nearly to resemble that of her peasant home, the beer was stopped, and she was given some light manual labor to perform. At the end of a fortnight a great improvement had taken place. Her milk was again analyzed. The mean results in the two cases showed that there was but little difference in most of the constituents. The lactose, however, had increased from 4.40 and 5·46 per cent. and the fat had decreased from 6·29 per cent. (which was the high figure denoting the proportioa, of fat in the first sample) to 3·97. Dr. Zaleski goes very fully into the literature of the subject, and gives analyses by many other observers. The conclusion to which he comes is that an excessively high percentage of fat in the milk, so far from being beneficial is actually prejudicial to the health of the child; and that a highly nitrogenous diet tends to produce excess of fat, and, to a smaller extent, an excess in the saccharine matter in the milk.—*Lancet.*

THE EARLY SIGNS OF LOCOMOTOR ATAXY.

Dr. Max Larger has published as a graduation dissertation in the University of Berlin an account of a number of observations made on one hundred and seventeen cases of locomotor ataxy in Professor Mendel's clinic, with a view of detecting the early symptoms of this disease; for, as he says, the great hope of a really rational and satisfactory method of treatmemt lies in the recognition of the existence of the disease in the earliest stage. The history given by the patient's established a connection between syphilis and locomotor ataxy in fifty-three per cent. of the cases. In the earlier stages he found symptoms affecting sensation, lancinating pains, numbness, especially of the lower extremities, a cordlike sensation round the waist, retardation of the rate of conduction of sensation, and what he looks upon as especially important, being almost always present, the so-called Romberg's symptom—*i.e.*, the inability or great difficulty of balancing the body when the feet are placed parallel and close together, the eyes being shut,—which, however, he does not consider is due to the ataxy, but thinks it is an abnormal condition of sensation. With regard to ophthalmic symptoms,he finds that at the commencement of locomotor ataxy there is a diminution of acuteness of vision, and a concentric contraction of the field, amblyopia and amaurosis, which were due in thirty-five per cent. of the cases to atrophy of the optic nerve. Then there were slight and transitory paralyses of the eye-muscles. Insensibility of the pupil to light was found in sixty six per cent. of the cases, and was due sometimes to a paralyzed condition of the sphincter and sometimes to disturbances of reflex action. With reference to the patellar reflex, the author thinks it has been considered to be absent rather too universally. He found it in eight of his one hundred and seventeen cases. The bladder reflex was often diminished, so that chronic vesical disease, the cause of which is not to be made out; ought to lead a medical man to think of tabes. Impotence was much more common than any increased sexual reflex. Very rarely gastric and cephalic "crises" and joint affections were noted. The author suggests that complaints of a vague nature, such as nervous pains, eye or bladder troubles, should lead the physician to make a thorough examination with special reference to the want of patellar reflex, Romberg's symptoms and the want of reaction of the pupil, as these objective signs do not necessarily give rise to any subjective symptoms.—*The Lancet*, August 20, 1887.

POISONING BY CHARCOAL FUMES.

An inquest was held recently at Petton, near Haschurch, on the body of George John Fry, aged ten. The deceased and his sister were put to bed in a room which contained no fireplace. As the apartment had been recently papered, the mother sought to connteract any possible effects of damp by placing in the room a bucket of burning wood ashes. On the following morning the deceased was found lying under the bed quite dead, his pupils being dilated; his little sister lay unconscious, with her face close to the bottom of the door. To this praticular position she undoubtedly owes her life. Both children

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had vomited. The report of the evidence taken at the inquest states that the medical man who was called in attributed death to poisoning by carbonic acid gas. There seems little doubt, however, that the lethal effects were mainly due to carbon monoxide, although probably other oxidation products, to some degree, were factors in causing dissolution. The coroner and jury expressed their sympathy with the bereaved parents, who had acted kindly but unwisely. It is curious that past experience of such catastrophes as the above has not warned people of the danger that lurks in a charcoal stove. If the members of our school boards require proof of the desirability of carrying out technical education, they may find it in the painful narrative now related.—*Lancet.*

THE BACILLUS OF WHOOPING-COUGH

Dr. Afanasieff has succeeded in finding and cultivating what he believes to be the true bacillus of whooping cough. This microbe differs distinctly from all other bacteria which have been described. It is somewhat like Friedlander's pneumonia bacillus, but is shorter and thinner than the latter; besides, in gelatine it does not form nail-shaped cultures, those which are p.oduced having no hemispherical head. Its potato cultures, too, are quite different from those obtained from Friedlander's bacillus. Afanasieff's bacillus exhibits a remarkable degree of vitality, for jelly cultures that have become dry and have been kept for four months, appearing under the microscope to be more or less destroyed, are still capable of producing fresh cultures when fresh media are inoculated from the dried mass. Dr. Afanasieff's researches were chiefly made from the sputum of some of his own children, who were affected with whooping-cough. The mouth was well washed out with a permanganate solution, and the mucus coughed up after the next paroxysm or two examined. In this mucus, after staining with methyl-violet, and in the pus-corpuscles contained in it, the bacilli could be seen with a magnifying power of from 700 1,000 (Zeiss's eye piece 3 or 4, $^1/_{12}$ oil immersion objective) as short rods, sometimes single, sometimes in two, or even in short chains running in the direction of the mucus, sometimes again in small clusters. Their length was from 0·6 μ. to 2·2 μ. Of course other bacteria were found. Pure cultures, however, were easily made on agar-agar, meat-peptone jelly, potato, etc. Dogs and rabbits were inoculated with a fluid culture mixed with chloride of sodium solution, some by means of injections into the trachea, others by direct injections into the lungs. All thk aminals were seriously affected, and many of them died. The symptoms were somewhat similar to those of whooping cough, including cough, dyspnea, and redness of the eyes. Many of the cases were complicated by broncho pneumonia. On examining the bodies of those aminals which died, the mucous membrane of the air passages was found much reddened, and coated with a tenacious clear mucus, in wnich, as well as in the pneumonic patches in the lungs, the bacilli were found. Similar appearance and the same bacilli were observed in the bodies of children who had died from whooping-cough. As to treatment, inhalations and spray of various antiseptic drugs would appear to afford the most ground for hope in relieving and shortening this complaint. The author points out that the quinine, benzoin, and other substances which have been used as applications to the nasal mucous membrane by Michael and others, under the idea of combating a reflex affection, are really, perhaps, beneficial from their property of destroying bacilli.—*Lancet*

BOOKS AND PAMPHLETS RECEIVED

The Treatment of Pulmonary Consumption, with a Reprint of Forty Cases. By Thos. J. Mayo, M. D., Phila.

The Medical News Visiting List. Lea Brothers & Co. Philadelphia.

Natural Law in the Business World. By Henry Wood. Lee & Shepard, Boston.

The True Nature and Definition of Insanity. By C. H. Hughes, M. D., St. Louis. Reprint from "Alienist and Neurologist."

Transactions of State Medical Society of Arkansas.

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REPORTS ON PROGRESS.

GYNECOLOGY.

BY YOUNG H. BOND, M. D.

I. TWELVE CASES OF RUPTURED TUBAL PREGNANCY.—By Lawson Tait, F. R. C. S., M.D., etc.—*The Satellite of the Annual of the Universal Medical Sciences.*

II. ONE HUNDRED AND TEN LAPAROTOMIES FOR THE REMOVAL OF THE UTERINE APPENDAGES. SIXTY-ONE CONSECUTIVE OPERATIONS WITHOUT A DEATH.—By Prof. W. Gill Wylie, M. D., N. Y.—*Annals of Gynecology.*

III. RECENT (ENGLISH) METHODS OF PERINEORRHAPHY BY DIVIDING THE RECTO-VAGINAL SEPTUM AND FORMING FLAPS.—Saenger.—*American Journal of Obstetrics, Etc.*

TWELVE CASES OF RUPTURED TUBAL PREGNANCY.

In the November number of the *Satellite* is contained the report of twelve cases of ruptured tubal pregnancy by Lawson Tait, F. R. C. S., M. D., of Birmingham, England. Leaving out the report of the cases in detail, I present herewith in his own language what he has to say upon this subject of such engrossing interest at the present time.

"In the columns of the *British Medical Journal* I have already reported twenty-three cases of ruptured tubal pregnancy, in which I performed abdominal sections, and tied the bleeding point on account of hemorrhage, which threatened life. All of these cases recovered with one exception, the first in which I operated. I have now to contribute a further group of twelve cases, in which there have been eleven recoveries and one death." Here follow the detailed reports of cases.

"Concerning these cases I have first of all to say, that they complete a series of thirty-five operations, performed every one of them under conditions of the utmost gravity, where life was threatened, and I have no hesitation at all in saying thirty two or thirty-three, if not all thirty-five, of these lives would have been sacrificed but for prompt interference. Of the thirty-five, only two have succumbed. One, as I have already said, the first on which I operated, because I knew not what to do. I was too long over the operation, I fiddled about, securing the bleeding points as they arose, instead of doing, as I always do now, separating all adhesions regardless of the bleeding points, until I get as rapidly as I could down to the base of the tumor, which is the broad ligament. A ligature placed round that and secured, at once arrests hemorrhage ; not a drop was ever lost after that. The other case who died, number four, the hemorrhage had already progressed too far, the patient was almost dead at the time I operated. She made a great struggle to get through, and lived five days and then succumbed. I almost wish in this case I had tried transfusion, but I have no great belief in the efficacy of that proceeding, and therefore did not do it. I think now I have cause to regret, perhaps, not having made the effort.

All the points of my previous papers on this subject are confirmed by the facts of these twelve cases. The diagnosis is not always possible, but it may be made correctly in probably eighty-five per cent. of the cases. The real clue to the nature of the case, is a history of sterility for some considerable time, the arrest of menstruation for weeks or even months, a sudden access of pain and collapse,

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with repetitions of these attacks, as graphically described by Dr. Dolan in his communication concerning his own case. The operation is simplicity itself. Open the abdomen, go at once to the seat of the rupture, that is, the broad ligament, and tie it, for, until you come to absolutely the ligament itself, the tissue is always so rotten and friable that no attempt to arrest hemorrhage in any other way can succeed. Then clear out the *débris*, put in a drainage tube. Of course, amputation of the ligatured mass is a matter of necessity, no one would ever dream of leaving such a thing to putrefy in the abdomen.

Mr. J. E. Burton, of Liverpool, seems to have some method of his own, by which he could leave a woman, as he says, in a clean condition surgically and yet leave a mass of disintegrating organs infiltrated throughout with blood clots to rot in the abdomen, and if this mass is removed he calls it a mutilation. Technically, it is a mutilation in the sense that the woman rises from her sick bed with one Fallopian tube and probably one ovary, where formerly she had two, but it cannot be imagined that these organs after the operation could ever resume their functions, and they certainly could not maintain any active life after the broad ligament was tied. To talk, therefore, of its being a mutilation, an operation that can be dispensed with or an operation that can be successfully accomplished in other ways, can only be the utterances of a man who has had no experience on the subject at all. It may be, however, that Mr. J. E. Burton had revealed to him by some special interposition of Divine Provi dence a new method of abdominal surgery which has been denied to me. If this is so, I call upon him to declare it.

Speaking of the treatment of these cases one is obliged to allude to the scheme by which it is proposed to destroy the life of the fetus, and to arrest the growth of the ovum. All I can say is that I am never called into these cases until the discussion of a proposal of that kind is too late, for being engaged exclusively in special practice I have no op portunity of seeing these cases, and never have seen them nntil the period of rupture. We have then no concern with the fetus at all, we have to deal with bleeding from the placental structure, and from the maternal sinuses in connection with it. An electrolytic needle under such circumstances would have no more effect than a pinch of snuff. In one of the preparations now laid before you, we have abundant evidence of the fetus having been dead for weeks, and yet hemorrhage had been going on. The probability is that the fetus had been dead for ten weeks before the operation was performed, and yet bleeding had been going on on the morning of the operation. If the cases were seen and diagnosed, as I have already publicly expressed my doubt they could be before the period of rupture, the introduction of an electrolytic needle, if it happened to pierce the body of the fetus, might kill it; but would it kill the placenta, which, as we know in the majority of instances, appears to go on growing when the fetus is dead? There can be no question that in these cases it goes on growing after the fetus is dead. But whether this be the case or not, the propriety of destroying the child before the period of rupture, if its presence in the abnormal position can be recognized, I leave to the discussion of the physicians who see these cases before the period of rupture. When the period of rupture, however, has been reached and hemorrhage is going on, there is nothing, so far as I can see, but for us to follow the surgical rule to cut down and tie the bleeding point.

That I should be able to produce within the short period of seven years thirty-five cases of this condition, treated by operation, confirms completely the statement of Dr. Blundell, that it is by no means uncommon. That it has been, when left alone, almost uniformly fatal, is a view which he strongly maintains, and which all evidence confirms. In fact there is a paragraph in Dr. Blundell's writings which sums up all that was known, and all that is known now, save in the matter of operative details, concerning the frequency and cause of this peculiar displacement. "I have never seen any cases of tubular preg-

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nancy in which the tube was of great size. More generally this canal enlarges to about the size of a small fist; sometimes to the size of a pullet's egg only; and in the early part of gestation (say in the second or third month) this cyst bursting open, the child escapes into the peritoneal sac, and the woman suddenly perishes by an internal hemorrhage. Many women, I have little doubt, die in this way; but, being buried without examination the real cause of their death is never ascertained. Three or four tubal gestations of this kind have taken place within the circle of my own obstetric acquaintance; whence I infer that the disease is by no means rare."

Thanks to the progressive emancipation of the professional mind from the thraldom of authority within the last ten years, we have now the means, if we have a reasonable time in which to act, to save at least the great majority of these cases.

As I have already said in communications to the Pathological Society, I do not it possible to over-estimate the value of the recent contribution of Dr. Berry Hart, and Mr. J. T. Carter, on the results of the examination of frozen sections of two cadavera, in which advanced uterine gestation was observed.

The views which I advanced concerning the pathology of extra-uterine pregnancy, so ong ago as 1873, have been entirely confirmed by facts that I have since seen in the operative details of this condition. But the misfortune of the operation is that it is witnessed by few people, and in such cases as those in which the operation is performed at the time of early rupture, the details are not perceptible to any one except the operator. It became, therefore, a matter of the utmost difficulty to persuade my professional brethren of of the accuracy of my views, and, except that they were always alluded to in writings on the subject, they seemed to make very little impression. Dr. Berry Hart's observations have completely proved the accuracy of the views which I had about this peculiar displacement.

Briefly stated, what I regard as the true pathology of extra-uterine pregnancy is as follows:—

In the first place,one or both, generally, both of the Fallopian tubes are so damaged by inflammatory change—desquamative salpingitis —that the procreative machinery is put out of gear. My belief is that the chief function of the cilia of the Fallopian tubes is to prevent the access of spermatozoa, and that, therefore, impregnation takes place in the tubes only when deprived of the in cilia. Adhesion of the impregnated ovum then takes place to the wall of the tube instead of the wall of the uterus, and then the ovum develops until the tube can no longer expand. Between the tenth and thirteenth week the tube gives way, and upon the position of the point at which the rupture takes place depends the variety of extra-uterine pregnancy, which is developed. By far the most common seat of rupture is out through the surface of the tube into the cavity of the peritoneum. Because the proportion of the circumference of the tube, which is covered by peritoneum is very much greater than the proportion of the circumference of the tube which is related, to what is called the cavity of the broad ligament. This rupture into the peritoneum, so far as we can tell, is fatal in an enormous number of instances; what the proportion is we cannot say, but it looks to me as if it were ninety or ninety-five per cent. Enormous sinuses are developed in the tube, and in the mass of the placenta these are torn, they bleed, the hemorrhage is recurrent, and the patients die of hemorrhage into the cavity of the peritoneum, forming the variety of intra-peritoneal hematocele, or they die later on of purulent peritonitis.

No doubt some of the cases must end in the death of the ovum without much hemorrhage, and become absorbed, but it is perfectly clear that in these cases the tube will remain functionally useless, because it has been sealed probably at both ends by inflammatory disturbance, and therefore will be a perfectly useless organ. So far as we know, in the whole realm of surgical literature there is only one case in which there is the least

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evidence of what may be called an abdominal pregnancy going to the full time, that being Mr. Jessop's case; and even that is open to the view that it would have been one of the other variety, in which the walls of the ovum cavity andtthe posterior layer of the broad ligament ruptured just at the last moment, and the child was found in the cavity of the abdomen. At any rate, except his case, there is no evidence at all of any case in which the ovum has been, or the child has been, developed inside the peritoneal cavity. In fact, considering the harmoniously active digestive powers of the peritoneum, the likelihood of the occurrence of such an incident would be very small.

The second form of rupture, into the cavity of the broad ligament, on the contrary, forms a condition which is, so far as I know, never fatal, or only rarely so, one instance alone having been placed on record in which death has taken place from the hemorrhage. In that case the fatal issue was doubtless due to the rupture of the cyst into the cavity of the peritoneum, so that really the exception is an example of the rule being proved, doubtless in many of the cases of this variety the ovum dies at once, or is absorbed like an ordinary broad ligament hematocele. But in other cases the ovum does not die, but goes on developing to the full time. Death, however, occasionally interfering with the progress of the pregnancy at the fourth, fifth, or sixth month. Then we have the group of cases in which, after suppuration has taken place, the bones of the fetus are discharged through the rectum, through the bladder, or through Douglas' *cul-de-sac* into the vagina. Many instances of this have occurred in my practice, as also have cases in which a lithopedion is the result. Such a lithopedion probably would have resulted in Dr. Berry Hart's first case.

The minority of the minority proceed to the full time, and are removed either as living or as dead children. Examples of both I have published at the full time. They are removed from a cavity which Dr. Berry Hart proves completely to be extra-peritoneal.

This last view was what I based all my conclusions upon, that these full time extra-uterinepregnancies were entirely extra-peritoneal, the only place in which they could be was the cavi.y of the broad ligament, and, therefore, I concluded that they were due to a rupture from the Fallopian tube into the cavity of this structure. Dr. Berry Hart's two preparations absolutely establish the justice of this conclusion.

One remarkable thing about Dr. Berry Hart's section is worthy of notice, because it explains completely the only difficulty which I found in the whole thing. That is, that whilst the peritoneum is lift right off the pelvis, all round the organs contained in it in every direction but one, it is not lifted from the anterior surface of the uterus. We have, therefore, a prolongation, like the finger of a glove, of peritoneum curving down in front of the tumor, although reaching as far as the fundus of the uterus into the base of the bladder, on either sider of this it is completely lifted. This explains what puzzled me greatly in two instances of my operations, that opening in the middle line, I had to close the cavity of the peritoneum after having passed throug hboth its anterior and posterior layers.

These observations of Dr. Berry Hart, as I have already said, completely establish my view of the pathology of extra-uterine pregnoncy, and these views of themselves enormously simplify at once the pathology and surgery of the condition.

One Hundred and ten Laparotomies for the Removal of the Uterine Appendages. Sixty-one Consecutive Operations Without a Death.

To our distinguished countryman, W. Gill Wylie, of New York, are we indebted to a greater extent than to any other one individual for the fair showing that we are enabled to make in laparotomy. His achievements in this line have of late been so brilliant that they leave nothing to be desired. Such results are readily understood by those who

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have observed Wylie's cautious and careful method. In the December number of the Annals of Gynecology, he has this to say upon the subject.

Feb. 2, 1887, before the New York State Society, in a short paper giving a summary of my work in abdominal surgery up to Jan. 1, 1887, I reported 74 laparotomies done for the removal of the uterine appendages. Of these, 69 recovered and 5 died; but there were no deaths in the last 27. Since Jan. 1, 1887, up to Oct. 20, I have done 36 laparotomies for removal of the appendages; only the thirty-fifth case died. Adding the 27 of my former cases to the 34 of these gives me 61 consecutive cases without a death. (See table.) Of the 36 cases, 20 were private, and 16 were hospital cases operated on in Bellevue Hospital: 25 were operated for subjective and objective symptoms sufficiently well marked to warrant the operation; 11 were operated upon for either painful or bleeding uterine fibromata. The hospital cases were, with few exceptions, selected from the patients of three of our largest dispensaries. Nearly all of the private cases were brought to me by professional friends from all parts of the country. A number of cases were sent to me for operation where the patients gave all the subjective symptoms of serious functional disturbance, if not of actual disease of the appendages; but, on account of the absence of any positive objective signs of actual enlargement or disease, I refused to operate. There certainly are a number of cases where both local and general treatment fails to give relief to pain and complete loss of health apparently due to disease or to a faulty action of the generative organs, and where, on examination, all we can find is an imperfectly developed antiflexed uterus with a prolapsed left ovary and a general condition of hyperesthesia on both sides. The question is, in such cases, where all other means fail to give relief, are we justified in removing the tubes and ovaries to put a stop to functional activity? Next, does the operation really cure such cases?

It is in just this class that serious mistakes are made. The operation for the removal of the appendages should be done only in very extreme bed-ridden cases, after a prolonged and careful trial of other means of cure by more than one doctor.

In three or four well marked extreme cases where I felt justified in operating it has effected a cure, but it has not changed the delicate woman into a strong, healthy woman; but they are up and about, and are not pulled down on their beds by the periodical return of menstruation.

Of the 36, only one was a case of hystero-epilepsy. On examination I found a large cystic ovary the size of an orange; the other ovary was cystic, but not much enlarged; both were removed. The patient, when last heard from, had only had one convulsion, and seemed to be improving. I would not advise operation except in cases where the convulsions seem to have a direct relation to menstruation, or where there are unmistakable objective signs of local disease of the appendages, and in no case would I promise a cure by the operation.

In two of the 36 cases the tubes and ovaries were not removed, because after the adhesions had been broken up the tubes were found patulous, and the ovaries, to all appearance, were not seriously affected. In both, the fixation of the uterus caused by the adhesions prevented the tubes and ovaries being defined until the abdomen was opened. In both, the subjective symptoms were sufficient to warrant the risk of opening the abdomen. From the density of the adhesions and the peculiarly indurated roughness of the peritoneum covering the fundus, and the general enlargement and hardness of the organ, it was plain that the uterus had been the seat of of a severe meritis, and that the peritoneum had become affected through the walls of the uterus, and not from extension of the disease into and through the tubes, as is nearly always the case. In both cases the ovaries were, to some extent, involved by the adhesions. In both cases the uterus was retro verted and retroflexed, and in both the functions of the rectum were seriously interfered

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with by the adhesions. Both were greatly relieved by the operation, and in one the displacement did not return after the operation. In both a glass drainage tube was placed behind the uterus, and kept there for several days. No attempt was made to sew the fundus to the abdominal wall.

In a third case, reported last January, in which the tubes and ovaries were not removed, the general condition of the patient was good; but she had been under treatment for uterine disease for three or four years, and spent most of the time in bed, giving the subjective symptoms of oavritis. On physical examination the ovaries seemed much larger than normal, and very sensitive. When the abdomen was opened the ovaries were held down by slight adhesions, the tubes were very vascular and unusually large, and both ovaries were studded by a number of recently ruptured cysts of ovulation, several on the exposed surface of each ovary. One or two of these were burst in getting up the ovaries, and this accounted for the increase in size. There did not appear to be sufficient evidence of disease to justify their removal; so they were dropped back and the wound closed. For a time the patient seemed better, but by mistake she was told that the ovaries had not been removed, and she was so provoked and troublesome that she had to be sent away from the hospital. The above cases raise the question; are we justified in opening the abdomen to break up adhesions in those cases where enlarged tubes and ovaries cannot be made out by examination?

We must not forget that, in some cases of salpingitis, sometimes the most painful and distressing kind of adhesions are small, thicker than normal, but much shortened. Nor should it be forgotten that adhesions *per se* are not a disease, and unless they are attached to or compress a diseased organ or gland, or constrict a lumen of an organ and prevent normal action or performance of function, they do no harm. In severe cases, where the adhesions seriously interfere with the normal action of the intestines by constricting the lumen, I believe laparotomy is the best and only reliable means of making a cure. Breaking up b force by the use of uterine repositors is method by no means free from danger, an utterly fails to give relief in many cases.

In two other cases, besides those relate above, I have done laparotomy successfull for relief of obstruction by adhesions nea the sigmoid flexure, which could not b reached per vaginam. In cases of adhesion of the tubes, if they are diseased enough t be occluded or distended with pus or othe fluid, I think they should be removed whe the abdomen is once opened.

Eleven of the 36 were operated upon for the removal of the appendages for painful or bleeding fibromata of the uterus. In 3 in stances the fibromata were complicated by pyosalpinx and ovaritis. In 2 others the ovaries had small fibromata attached to or growing from them. As a rule fibromata are not painful, but they are not uncommonly complicated by inflammatory disease of the tubes and ovaries or endometritis. When there is associated fibroid degeneration of the ova ries, I believe the pain is due to this condition rather than to the fibromata. In 2 of the 1 the menstruation was not checked, although the tubes and ovaries were carefully removed In both of these the fibromata were large and were intrauterine.

Peirneorrhaphy by Dividing the Recto Vaginal Septum and Forming Flaps.

In the German Gynecological Society, held at Wiesbaden, Sept. 1887.—Dr. Saenger (Leipzig) read a paper on recent methods o peirneorrhaphy by dividing the recto-vagina septum, and forming flaps. The transcrip contained in the Journal of Obstetrics etc., i as follows:

In the beginning of the present year, S. b came acquainted, through a Danish physician with Lawson Tait's latest method of operatin for lacerated perineum and prolapsus, and ha employed it thus far seventeen times wit the best results: seven times in various degree of vaginal and vagino uterine prolapse, thre times in old chronic perineal laceration, an

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seven times in incomplete rupture. S. demonstrated the method plastically on an alcoholic specimen in a frame and paper phantoms. In brief the modus operandi is as follows;

1. In incomplete perineal rupture. A cotton tampon is introduced into the rectum. The recto-vaginal septum is divided with pointed bent scissors in a transverse direction to a depth of about 1½ cm., and a width of about 3—4 cm. From the terminal points of the transverse incision two lateral cuts are made at right angles to the latter about as far as the labio-uymphal border. The vaginal flap thus circumscribed is folded upwards, thus producing a nearly square wound-surface, somewhat rounded above. The stitching is done in a transverse direction by means of Peaslee's needle and silver wire, the needle passing in and out exactly at the border of the wound with the skin; three or four suffice. Between them come some superficial silkworm-gut sutures which include the skin. Iodoform after-treatment. Removal of the superficial sutures on the seventh,of the deepsutures on the fourteenth day.

2. Procedure in the higher degrees of vaginal prolapse. After preceding amputation of the cervix (or Emmet's operation, or excision of the cervix, according to circumstances), anterior and posterior colporrhaphy, the latter without inclusion of the perineum, the operation is the same as under No. 1. Only the lateral incisions are carried further forward, so that after the sutures are knotted, the introitus vaginoe becomes narrower and the perineum higher and firmer. Mere episioperineorrhaphyw ithout simultaneous plastic operation in the vagina and on the cervix, as done by Lawson Tait, is insufficient.

3. Procedure in complete old perineal rupture. First, transverse division of the recto-vaginal septum, best by means of the scalpel, than lateral circumscription of a vaginal flap, as under No. 1. These incisions are prolonged backward to the point containing the lacerated sphincter ani, thus limiting a rectal flap. The incisions in this way form the figure of an H, and after the two flaps are folded over, an approximately square wound surface results whichsis united as under Nos. 1 and 2 Neither vaginal nor rectal sutures are inserted; all sutures are put in from the perineum; thus the formation of recto-vaginal fistulae is absolutely excluded.

This circumstance, the facility and rapidity with which the flaps are formed (Lawson Tait consumes only four minutes for the whole operation), and the simplicity of suture, make the method appear as a real advance in perineoplasty; also because it can be easily learned by the general practitioner rather than the difficult and complicatedprocedures.resting on denudation by the removal of tissue.

Peirneorrhaphy as thus practiced seems to me more especially adapted to that class of cases in which the vaginal ostium needs repair. It does not commend itself to me as capable of meeting the indications in that important class of cases, in which prolapsus is favored by the absence of that feature of the pelvic floor,that accomplishes the rebound of the uterus when it happens to be unduly depressed.

ORIGINAL ARTICLES.

DIPHTHERIA.

Remarks by Dr. C. H. Hughes on Paper of Dr. Moore, read before the Medical Press Association.

Since Bretonneau differentiated between diphtheria and croup, the mortality in diphtheria has marched on to frightful proportions.

Before the distinguished French observer published his observations, croup and diphtheria were treated as one and the same disease. Membranous croup and all similar conditions passing under the designation, were regarded as inflammatory affections giving rise to a plastic exudate, the formation of which it was the duty of the physician to prevent or break down. For this purpose calomel was the *sine qua non* as an aplastic remedy, defibrinating the blood in accordance with the teaching of Simon, and rendering the false membrane, whose tenacity imperiled

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the integrity of the air passages and the patient's life, innocuous.

The profession is returning to the therapeutics, if not to the theory of the past, and a greater measure of success in diphtheria is likely to crown the efforts of the profession with calomel, corrosive sublimate and other germicide agencies, locally and constitutionally employed, than by other methods.

I do not recollect to have lost a case of diphtheria until after I learned to make the differentiation of Bretonneau, a distinction not so generally acquiesced in to-day as twenty-five years ago.

In my earlier practice, and nearly up to the time when my neurological work supplanted general practice, I gave in the incipiency of every case a full calomel purge, and treated the disease as an inflammatory affection for which this practice and subsequent moderate doses of calomel and full doses of quinine, and tranquilization and conservation of the strength of the assaulted nerve centers was rationally indicated.

Since then our knowledge of bacteria and germicide therapeutics has advanced, but this advance only proves how wisely founded were the therapeutics of our fathers in this dread disease. They could rescue their patients by efficient means, though they had a different notion of how it was done than we.

The old strong tannin, honey and myrrh gargle used freely in quantity and repeated *ad libitam*, and vinegar throat washes cleaned out the false membrane, bacteria and all, though our fathers only called them detergents.

The sequelae of diphtheria.—There is one part of this subject which is always of special interest to me, that is, the paralytic sequelæ of the disease.

Diphtheria assaults the motor as well as the ganglionic nerve centers, and while the province of the physician is to sustain the patient till the storm is past, it is fortunate that these sequelæ are not so enduring always as other forms of paralysis.

This is probably due to the fact that the damage to the nerve centers is *ad neural* rather than *intra neural*, *i. e.*, an exudativ deposit upon, rather than within the textur of the nerve, an adventitious and removabl change rather than permanent structural dam age, an oppression of the nerve center fro without rather than direct damage within th motor nerve centers, like the remov of gummatous exudate which gives rise t many of the paralytic diseases associated wit syphilis of the nervous system, and which, i the arteries be not degenerated or perforated and further damage to brain or cord does no exist, is removable under the judicious use o mercury and the iodide of potassium. It i fortunate for the sufferer from these paraly tic sequelæ of diphtheria if the central o peripheral nerve change has gone no farthe than an ad neural one.

DIPHTHERIA.

Remarks by Dr. Wm. Porter in Discussion of Dr. Moore' paper before the Medical Press Association.

Following Dr. Moores paper Dr. Williar Porter read extracts from his paper presente at the ninth meeting of the American Laryn gological Association.—He believed that th diphtheritic poison first invaded a mucou membrane denuded of its epithelium, that i rapidly increased and was quickly absorbed Local in the early stage, it soon became co stitutional.

The most important part of the treatmen is that addressed to the systemic involvmen A good dose of calomel and soda to sta with, followed by iron, benzoate of sod stimulants, nutrition and good food.—Rest imperative. We must aid elimination of th poison and assimilation of ood.

Local treatment is valuable, for we may b able to limit the amount of poison at th point of infection. His favorite application the pharynx is equal parts of tr. ferri hydr chlor. and glycerine, used with a probe co ered with absorbent cotton and frequently r peated till the false menbrane shows signs disintegratien. Care should be taken make the application as gently as possible.

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DIPHTHERIA IN PRIVATE PRACTICE.

BY A. FUHRMAN, M. D., ST. LOUIS.

Before entering on the much talked of subject of diphtheria, I should like to make a few preliminary remarks, and while they may not properly belong to the subject at issue, they bear some relation to certain points which I raise and may make them pertinent to the whole. The old saying, "Man, know thyself," stands out brilliantly before us all, and yet but how little attention do we pay to it. Man is but a delicate piece of mechanism, the workings of which "be it the act of self preservation or the mechanical part, as viewed by the world at large," is controlled exclusively by the laws ordained by its Creator. That in the course of natural life there is wear and tear, that impaired function will manifest itself, that what at times seems very insignificant may assume proportions to endanger endanger the very existence of the whole; that this may be due to either a natural or acquired cause are facts.

As with any mechanical contrivance, be it ever so simple, let there be a proper want of attention, and what will be the result? Nature banks her fires, and makes the necessary attempt by sleep to accomplish repairs on the one side, and on the other, we elect some one from our midst to specially study this our human piece of mechanism, to guard and assist nature to rectify when necessary. Often we extend a helping hand and it is treated with disdain, and while we know that we have tried ever so hard we have never reached that stage where we can correct all imperfections, yet we must not lose courage.

In speaking of diphtheria I cannot concur in the prevalent idea that it is so fatal a disease, in comparison with others affecting the mortal frame. It is true that there is a certain amount of danger connected with it, but we have similar dangers to contend with in other diseases, and from experience I would say that the dangers entailed by this disease are not near as great as represented. The science in the treatment of diphtheria has been so far advanced that it is a comparatively easy matter to take the aggressive, and combat the faulty ways of nature, and correct and stimulate the same.

The question often is asked, if not by one of the family in which you have a patient, by oneself, will the patient recover? I would say, don't let that take a moment of your time. You are the commander and have your forces to work with, and while it is only too true that victory is not always ours, yet it is a wise plan to marshal our forces very carefully and effectively, and consider the result after your labor is done. The doctor must not lose courage or patience, nor cease his watch that every instruction may be carried out fully. He cannot see his patient too often that he may note every change and be ready to meet it. At times he will find the result very gratifying, and at other times discouraging, and here is the time to show true courage.

Diphtheria manifests itself in various ways, and while some patients appear languid and depressed, others appear full of life and vigor throughout its whole course, and yet all other symptoms, such as high temperature, pearl grey appearance of the tongue, anxious look of the eye, will be always present, while the exudation or membrane may or may not be within sight.

The treatment that I propose to offer received its initiatory from my friend, Dr. Wm. Porter, of St. Louis, and I am under obligations to him for the success I have had. I cannot resist the temptation to make an attempt to force upon the profession, if I may so term it, the full intent and meaning of his ideas, as published in various papers, and especially his last, read before the American Laryngological Association, at its ninth annual congress, and reported in the *New York Med. Jour.*, Nov. 19, '87.

The statements I make are based upon 119 cases, with the following

COMPLICATIONS.

Three cases of blood poisoning.

Two cases of blood poisoning, followed by

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paralysis of the soft palate, age three to six years.

One case of blood poisoning, age 20, complete paralysis of lower and upper extremities.

Five cases of diphtheritic croup.

First died.

Second died from a second attack.

Third had three different attacks, recovered.

Fourth, two attacks, recovered.

Fifth, one attack, recovered.

Two cases of recurrent diphtheria.

Two cases of scarlet fever complications (both finally died of acute nephritis).

Two cases measles of appearing on the third day, recovered.

One case where no action could be gotten from the bowels for a period of five days by medicines or injections.

When I am called upon to see a patient, be it in the office or elsewhere, my first impulse, after noting the pulse, is to examine the tongue, the appearance of which is often very characteristic, so much so in my experience as to be a rule with only one exception, *i. e.*, where a mercurial had been taken then, it loses its characteristic appearance. If the peculiar tongue presents itself, and the body is hot, I proceed to examine the condition of the mouth, larynx, etc. Sometimes fever is seemingly to the sense of touch absent, and then if the thermoneter is brought into use, a fever will be discovered. An examination may disclose a high state of inflammation and often an exudation. I have found the throat cone-shaped, the base the roof of the mouth, and the apex below the mucous membrane appear ing red, streaked, very tense and glossy.

Whenever these symptoms present themselves, though there be no exudation in sight, the doctor must assume the aggressive, and let the patient have the benefit of the doubt. He must be prompt and decisive in his action in order to check the disease in its infancy. He must assist nature to hold her own until she can loosen the fangs of that deadly anodyne that has enwrapped the patient, and eliminate it through the propper channels.

My course of treatment is both local and constitutional, internal medication being invariably the rule, while restriction of local applications applies first to cases where the vitality of the patient is very great, and unruliness is very marked, and again, to cases where the application becomes painful, or hinders deglutition and thus indirectly invites starvation. The patient is often costive, and I administer a moderate dose of calomel, and find that children will need more in proportion than adults. As an external application for enlarged glands I use equal parts of ungt. hydrg. and ungt. bellad. morning and evening. One hour after I have given the calomel, I begin with iron and stimulants internally, and quinine if needed, giving small doses frequently.

The quinine may produce not only a tonic but anodyne effect the patient sleeping soundly for hours. (See article by Dr. Eklund of Stockholm, *Therapeutic Gazette* Dec. 15, 1887.) From the first I use a local application of tr. fer. chlor and glycer., equal parts every two hours, only discarding it in cases where it proves painful, and then I use an antiseptic gargle frequently. A little patience and precaution is necessary in making the application. We must gain the confidence and then our work is very easy, immediate relief after every application as a rule. The application is made by means of absorbent cotton fastened to a holder, it is softer than a sponge probang and each piece of cotton being destroyed after an application makes it more cleanly than if a probang or brush be used, and consequently more effective.

I stimulate the patient and give liquid foods, beef tea, and keep the bowels open with calomel or oil, and less calomel will be necessary as the case progresses.

In closing my article I want to bring out one particular question *i. e.* the marked derangement of the digestive and secretive organs in this disease, we find this derangement more or less marked. We find also that just as soon as we rectify this trouble so much faster will the trouble in the throat abate. I would insist that nature might be assisted

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from time to time to eliminate superfluous secretions and make it a benefit to the whole.

ON TABLET TRITURATIONS.

BY WILLIAM MURRELL, M. D., F. R. C. P.

Lecturer on Materia Medica and Pharmacology at the Westminister Hospital, L

During a recent visit to the United States I had the pleasure of making the acquaintance of Mr. John Wyeth, of Philadelphia, Pa, who by dint of years of hard work and unremitting study, combined with business capacity, has made for himself a reputation as a manufacturing chemist, which would be considered phenomenal in this country. I had not met Mr. Wyeth before, but with characteristic American hospitality he placed the whole of his vast establishment at my disposal, and at once proceeded to initiate me into the mysteries of his laboratories and workshops. He showed me much that was new, much that was of the greatest interest, and satisfied my eager curiosity in every way, answering my questions even on matters of detail without the slightest hesitation or reservation. I was pleased with his tabloids and delighted with his fluid extracts, but what interested me most was a new series of preparations to which he has given the name of "Compressed Tablet Triturates." As these are, I think, unknown in England, I would venture to say a word respecting their mode of manufacture, composition, and uses.

Dr. Lauder Brunton defines triturations as being "intimate mixtures of substances with sugar of milk," whilst in the United States Pharmacopeia the following directions are given for their preparation:—Taks of the substance ten parts, sugar of milk in moderately fine powder ninety parts, to make one hundred parts, weigh the substance and the sugar of milk separately, then place the substance, previously reduced if necessory to a moderately fine powder, into a mortar, add about an equal bulk of sugar of milk, mix well by means of a spatula and triturate them thoroughly together. Add fresh portions of the sugar of milk from time to time, until the whole is added, and continue the trituration until the substance is intimately mixed with the sugar of milk and finely comminuted." The introduction of triturations seems not to have been unattended with opposition, for Stille and Maisch insinuate that their employment is objectionable "on moral as well as theoretical grounds." I should be sorry to take any step which might savor of immorality, but as I found these compressed triturations in generally use in many hospital in the States, and as I received the assurance of many distinguished physicians, both of the east and the west, that they had employed them with benefit, I determined to give them a trial. The list of these triturations is a long one, and I have not used them all, but those I have prescribed since my return to England have given such good results that I am encouraged to pursue my investigations.

The first tablet to attract my attention was one containing a one-minim dose of tincture of aconite. These tabloids are lenticular in shape, about the size of a split pea, and weigh less than a grain each. We all know the wonderful effects which sometimes follow the administration of aconite in small doses. Ringer says "perhaps no drugs is more valuable than aconite," whilst Farquharson speaks of it as "an excellent antiphlogistic, cutting short inflammatory processes in their early stages." Ringer recommends its employment in small doses when the inflammation is not extensive or not very severe, as in the catarrh of children, in tonsillitis, or in acute sore throat; and Brunton, commenting on the mode of treatment, points out that its introduction has "the very great advantage that the desired effect can be produced with greater certainty and with less risk of an over dose being given." Mitchell Bruce finds that "medicinal doses of aconite taken in close succession reduce the frequency, force, and tension of the pulse, flush and moisten the skin, and increase the amount of urine," whilst other writers are equally enthusiastic in its praise. Following in the wake of these

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excellent authorities I have given the tincture of aconite in minim doses in the form of tablets, not only in tonsillitis but in a number of other acute diseases,such as pharyngitis, bronchial catarrh, common coryza, rheumatism, and even gout, with results which, to say the least, are most gratifying. Ringer points out that the method of employing the drug has much to do with its efficacy. "It should be given without delay at the very onset of the disease, every hour being of importance. Half a drop or a drop of the tincture in a teaspoonful of water should be given every ten minutes or a quarter of an hour for two hours, and afterward hourly, but if there is much prostration with a feeble and weak pulse a still smaller dose may be given." The compressed tabloids have this great advantage over the method of administration usually adopted that they ensure accuracy of dose without the trouble and annoyance of weighing or measuring, and they can be taken at any time and in any place even when the patient is following his ordinary avocations.

The next compressed tabloid trituration employed contained one-hundreth of a grain of perchloride of mercury, and this I have found useful in many forms of diarrhea, especially when the stools are slimy, offensive, and mixed with blood. Phillips says that for infantile watery diarrhea this dose acts well, whilst Ringer finds that "the chronic diarrhea of adults independent of serious organic change of the intestines with watery, pale stools often yields to the hundredth of a grain of corrosive sublimate every two or three hours." These statements I confirm, but prefer giving the dose more frequently—every quarter of an hour for the first hour, and subsequently hourly for five or six hours, or until the symptoms are relieved. This mode of treatment proves equally efficacious in the dysentery of adults, especially when the stools are slimy and mixed with blood.

Tabloid triturates containing one-third of a grain of grey powder given every hour are useful in many forms of dyspepsia, and also in infantile diarrhea accompanied by vomiting and the passing of offensive watery motions. Ringer finds that a-sixth of a grain of grey powder given hourly is of great service in infantile cholera characterized by incessant sickness with profuse and almost continuous diarrhea, very offensive and copious motions, watery, colorless, or of a dirty muddy aspect. The same dose I find is useful in tonsillitis when the fever has subsided, but the tonsils have not resumed their normal size and condition. In the treatment of the early stages of syphilis these triturates of grey powder will be found efficacious, and the same may be said of the tabloids containing one-twentieth of a grain of the green iodide of mercury. They must be given frequently, and their administration may be continued for weeks or even months.

Dr. George Bird, of London, has recently called my attention to the value of calomel in doses of a tenth of a grain as a hepatic stimulant, and I have frequently employed it in the form of the triturates for the purpose. I believe you obtain from these small doses given every three or four hours as good an effect as from a single dose of five or even ten grains without inconvenience to the patient. Podophyllin resin in doses of a quarter of a grain every four hours is equally useful. Phillips says, "A single dose of a quarter of a grain or at most half a grain, though sometimes slow in acting will usually produce watery and bilious purging, and this effect, instead of being followed by a constipative reaction, will be succeeded by increased and long-sustained action of the bowels."

One of the most useful tablet triturates in the list is the tenth of a grain of sulphide of calcium. I use this for boils, carbuncles, abscesses, suppurating scrofulous glands, and other affections accompanied by the formation of matter. The pus is rendered more limpid, discharge is promoted, and the inflammation quickly subsides. This is one of the best methods with which I am acquainted of treating a troublesome class of complaints. Many practitioners prescribe the drug in the form of a pill, but I think the tabloid triturates are preferable.

The tincture of nux vomica triturates, each

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containing one minim, have proved very useful in the treatment of obstinate constipation, rapidly cleaning the furred tongue and producing a copious action of the bowels. The tabloids are also useful in dyspepsia and in the vomiting of pregnancy. A most excellent laxative compound compressed tabloid triturate is one containing a fifth of a grain of aloin, a sixteenth of a grain of strychnine, an eighth of a grain of extract of belladonna, and a sixteenth of a grain of ipecacuanha. I have long employed this formula, sometimes alone and sometimes in combination with the extract of cascara sagrada.

Whether the mere fact of minutely subdividing a drug by triutrating it with sugar enhances its effect is still a moot point, but it must be remembered that whilst metallic mercury in bulk is almost inert as a therapeutic agent, it acts as a powerful purgative and is capable of producing the full physiological action of its oxide, when rubbed up with chalk as in the officinal grey powder, or when triturated with liquorice root and confection of rose in the preparation of blue pill. Other drugs which are usually described as being valueless are stated to have an increased effect when minutely subdivided. Possibly the fact of presenting them in a form in which they can be readily assimilated by the stomach and intestines may afford a sufficient explanation.

My observations have been made with only a limited number of these preparations, but the list is a long one, and there is plenty of scope for investigation. The tabloids of tincture of belladonna, one minim in each, of hydrochlorate of apomorphine, one-fiftieth, of enonymin, one-eighth, and of the various essential oils efford promising material. The tabloid of arsenious acid is reputed to be useful in coryza and some forms of diarrhea. The twentieth of a grain of sulphate of morphine tabloid taken every five minutes induces sleep with the minimum dose. Whilst the tabloids of tincture of capsicum, each containing one minim, have a reputation in America for the treatment of gastritis and the morning vomiting of dispsomaniacs. Mr. Wyeth points out that triturates to be of any value must be made according to certain definite principles. To begin with, only the purest drugs should be employed, adulteration or sophistication being sedulously avoided. Then they must be genuine triturates, the admixture or combination being perfect, and the drug distributed equally throughout the mass. The tablets must be absolutely uniform in size, and must contain in each the exact quantity of the drug which it is proposed to administer. They should be sufficiently consistent to retain their form and yet friable enough to break up into powder when moderate pressure is applied. In the tablets I have examined these principles have been strictly adhered to, and they will bear investigation both with the microscope and the balance.

PLACENTA PREVIA WITH REPORT OF CASE.

BY L. E. NEALE, M. D., OF BALTIMORE, MD.

Demonstrator of Obstetrics in the University of Maryland. Junior Obstetrician to the Free Lying-in Hospital.

Read before the Gynecological and Obstetrical Society of Baltimore, Nov. 8, 1887.

Mrs. K., white, 35, years of age. III para, of good health and physique. The third and last pregnancy was apparently perfectly normal and advanced to full term.

October 3rd, 1887. 4 A. M., she arose from bed to use the chamber, and while sitting upon the same she experienced a sudden and alarming uterine hemorrhage, probably to the amount of one pint. This was the first intimation of labor, and slight uterine pains and hemorrhage followed. I arrived within two hours and found the vagina full of blood clots, a slight oozing from the uterus, the os about one inch and a half in diameter, membranes felt over one third of the os to the left side intact, thin placental tissue covering the remainder.

Vertex freely movable above the pelvic brim presenting L. O. I. A., general condition of child and mother excellent.

Diagnosis.—Placenta previa partialis.

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Prof. G. W. Miltenberger, being called in consultation, confirmed the diagnosis and administered chloroform.

Treatment.—External pelvic version and extraction.

Without the slightest difficulty I turned down the breech from the fundus to the os by external maneuveres, merely making inverse pressure on opposite extremities of the fetal ovoid until the breech came down to the superior strait. Then holding the breech down with my left hand over the abdomen, I passed my antiseptic right hand into the vagina and two fingers of the same through an os about the size of a trade dollar. A hand was first felt through the membranes and then upon pressing down the breech more firmly from without. a foot came within the grasp of my two fingers, index and middle, and was at once drawn through the os.

Of course, as both membranes and placenta were torn by this precedure, there was a gush of bloody fluid that was, however, instantly checked by the tamponing leg of the unborn child. My active measures now ceased and I felt the happy confidence of being master of the situation. Gentle but firm and steady traction on the foot gradually brought down the leg and thigh through the tightly encircling but yielding os, and everything seemed favorable until the breech was brought down together with a mass of pulsating cord into the upper part of the vagina.

The traction was now increased, pulling always on the left leg; the breech, trunk and arms were rapidly delivered, and the after-coming head extracted by the Smellie-Veit grip.

The patient was thus delivered within 30 minutes from the beginning of the anesthesia; she sustained no injury whatever, and I am sure did not lose fʒij. of blood during the entire operation. The placenta was readily expressed (Credé), the uterus contracted and retracted well, a 1 4000 bichloride intra-uterine douche was given, and fʒi. of ergot per os completed this very simple, rapid and highly effective treatment.

A fine male child was born asphyxiated (probably on account of the compressed prolapsed cord), but was revived by Schultze's method of artificial respiration. The puerperium was perfectly normal and both mother and child are now in excellent condition. I consider the interesting points of this case to be:

1. The entire absence of premonitory hemorrhage.

2. The treatment.

Before the State Society in May, 1885, and our own little circle on February 8, 1887, I directed the attention of our local profession to Lomer's excellent and most eminently practical, "Original Communications on Combined Turning in the Treatment of Placenta Previa." (*Amer. Jour. of Obstetrics*, Vol. XVII, No. 12.) I accept this opportunity of again mentioning the brilliant results attending this method of treatment. Think of 93 cases of placenta previa with but one maternal death, or a mortality of about one per cent. Consider 178 cases with eight deaths or 4.5 per cent., or "placing the statistics in the most unfavorable light possible, and including every single case, even such as had been treated according to other methods, previous to the employment of the bimanual method of turning" we have a total of 236 cases with 21 deaths, or about 10 per cent. maternal mortality. Contrast with this King's 240 cases with 54 deaths, or 22.50 per cent. maternal mortality, (*Amer. Jour. of Obstetrics*. Vol. XIII, No, 4, p. 750,) which is the best showing next to Lomer's ever made, and tell me, do these figures direct us to the proper treatment of placenta previa?

Text books place the maternal mortality in cases of placenta previa from 24 to 40 per cent. under various methods of treatment, while here we have even under the most unfavorable conditions only ten per cent., with a possible one per cent. in those cases not previously mal-treated.

To my mind this places the matter beyond argument; if we pin our faith on facts, we have them here. Had I any doubts on the simplicity and efficacy of this treatment the case herein reported would certainly tend to remove them.

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But I will not be enthusiastic, for, unfortunately, this plan of treatment is not practicable in all cases of placenta previa when first seen by the accoucheur; yet to be brief, I am of the opinion that it is the best treatment whenever practicable. Even when we investigate the results of the treatment upon the children, this conclusion is not in the least invalidated.

We know that if placenta previa cases are left to nature, about two-thirds of the children die anyhow, and one-half of those born alive die within the first 10 days of extra uterine existence.

Compared with this we have 50 per cent of the children in Lomer's 101 cases and 60 per cent of the entire 178 cases collected that died, and these figures are certainly as creditable as those from various other plans of treatment where the infantile mortality ranges from 50 per cent under Braun, to 75 per cent under Schwartz. Moreover, in such a dangerous condition, although the life of both child and mother should be saved if possible, there should never be any question between the two, for it is the universally accepted opinion that the safety of mother should always hold precedence over that of her unborn offspring. Therefore I would briefly summarize the following practical conclusions regarding this subject. First of all let us bear in mind that an early diagnosis by touch, the only positive method, should be made as soon as possible, and is of the most practical importance in cases of placenta previa.

2. That placenta previa is an exceedingly dangerous pathological condition that should be removed as early as practicable, and therefore temporizing treatment, by which the pregnancy is allowed to continue, is certainly not justifiable after the thirty-second or thirty-fourth week or period of possible and probable extra-uterine fetal viability.

3. Inasmuch as the mother is never safe until completely delivered, that should her life be endangered by hemorrhage or the child be dead before this period, the evacuation of the uterus should follow as soon as practicable after the diagnosis.

4. That the woman is never safe from hemorrhage until the uterus is completely and thoroughly contracted and retracted upon itself.

As regards the treatment during labor:

1. In cases of head or trunk presentation, pelvic version by the external or combined method of Braxton Hicks and the extraction of a foot through the os, then leaving the subsequent delivery to nature or completing it as soon as possible according to the urgency of the case, is the best treatment, because it can be applied as early as the os will admit two fingers and because its efficacy is amply demonstrated by its excellent results.

2. "When the placenta is only felt marginally, when the head has entered the pelvis, when pains are strong and hemorrhage not very profuse, then rupture of the membranes seems to be the right thing."

3. The tampon is only a temporary makeshift or entering wedge to a more radical treatment. It should only be used when the os is so undilated and undilatable that the finger can not enter to perform bipolar version or grasp a foot. It should be applied under antiseptic precautions; it should remain *in situ* not more than 4 hours;should be removed earlier if deemed advisable: the patient should be under the constant personal observation of the physician during this time.

4. When the os is partly dilated, the pains good, the head in the pelvic cavity and hence version is impracticable, Barnes' method of separating the placenta from the lower uterine segment might possibly be permissible. We should be always ready however to deliver instrumentally whenever necessary.

In cases of placenta previa, as elsewhere, instrumental delivery may be required according to the peculiar conditions of the individual case, ex. gr., with head immovably fixed in the brim or pelvic cavity forceps or possibly craniotomy might ultimately become necessary. With trunk presentations where version by any or all methods external, combined or internal had failed or was impracticable, decapitation would be required.

In breech presentation where extraction by

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the hand failed or was impracticable, the forceps it applicable, (frank breech: Tarnier forceps) might possibly become necessary and should be preferred to the fillet os hook, etc.

But these general rules apply to all cases alike and need no special mention here.

I would merely say in conclusion that the external method of performing podalic or breech version practiced in the above case being the simplest, easiest and least dangerous (less shock: more antiseptic) of all other methods should in my opinion whenever practicable be given the preference; next bi polar or combined, and lastly internal podalic version in the order mentioned. The case I consider well illustrates the plan of treatment herein advocated, and although it is possible that the same result might have been obtained by other methods of treatment I must believe that what has served me best, is as far as I am concerned, *the best.*

REMEDY FOR NEURALGIA

(Dr. J. T. Metcalf, in *Boston Med. and Surg. Jour.*)—The following formula was learned from a patient sent to Cuba, with the hope that a change of climate would afford relief from sciatica. A French physician, who there attended him, used this remedy with the best results: Equal parts of the tinctures of aconite root, colchicum seed, belladonna, and actea racemosa. Six drops to be taken every six hours till relief is felt. "As an internal remedy it is worth all others put together, of which I have knowledge."

TREATMENT OF EPISTAXIS.

The hemorrhage in the vast majority of cases proceeds from the septum, which is supplied by a branch of the facial. It enters the opening of the nose just below the alæ nasi, crossing the superior maxillary bone at that point.

In a practice of nearly thirty years, I have had many cases of epistaxis, and have never in a single case failed to arrest the bleeding by compression of the aforesaid artery, with the finger applied over its track, making firm pressure against the bone.—*J. Robinson, M.D., in Therap. Gazette.*

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SATURDAY, JANUARY 14, 1888.

WITHDRAWAL OF DR. PRIMM.

With the close of the year 1887, Dr. B. J Primm, who so ably conducted the editoria department of the Journal, severed his con nection with the REVIEW, both as collabora tor and association editor. The resignation was final, and the association could only acquiesce in Dr. Primm's wishes in the prem ises. The resolution of the Press Associa tion on the subject are crowded out from this but will appear in the next issue.

THE PHYSICIAN AND THE PHARMACIST.

A recent editorial communication in these pages from the pen of our confere, Dr. King suggests some further words on this subject

Pharmacy came into vogue as an adjunct to practical medicine. The pharmacist is the physician's assistant. Formerly he was at tached to his office; of late years he has be come a separate institution and a distinct, ye none the less dependent establishment. Wit out the countenance and support, direct a indirect, of the medical profession, pharma as an art could not exist. Its knowledge the use and applications of medicines and t needs of the people in that line comes fro medicine as a science.

Pharmacy should ever be subordinate medicine, and when pharmacy puts on airs superiority and independence it should be buked by the parent and master professio Pharmacy can not walk upright and wa alone. It must go hand in hand with tr medicine as its handmaiden, or it must stu ble and fall.

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The apothecary as an independent institution can be dispensed with by medicine, and whenever and wherever pharmacy declines or fails to walk uprightly, it is the duty of medicine to discountenance and rebuke it.

The advances in chemistry and the manufacturing of medicine in readily dispensable form by reputable establishments in the United States especially, have made it possible for the practicing physician, even of a large practice, to dispense with the direct aid of the druggist, and put up his own medicine, and wherever that can be done, physicians of very large practice could and can have their own private drug store and druggist, for drugs are now put up in compact shape in small bulk and need not occupy large dispensing rooms.

The time has come in the progress of medicine, chemistry and pharmacy when the abuses of the drug stores should be suppressed by proper professional action.

The drug store that is chiefly a depot for patent medicines, and a focus of counter prescribing and disreputable quackery need not be patronized by physicians.

There are many medicine firms that prepare drugs for ready use in convenient form for easy dispensing. Let physicians use them instead of patronizing a drug store that may send the patient to some other doctor, or prescribe some substitute medicine "in case the prescription don't work well;" or discloses the contents of your prescription, which it were better, for potent reasons, to keep from the patient.

There is a serious objection to confiding your prescriptions to any but the most discreet pharmacist, and that is the paramount obligation to your patient of secrecy. A physician ought not, without his patient's consent to disclose the nature of his malady in certain cases, especially such as certain prescriptions do if the druggist has the whole course of treatment on paper to be filled out by him.

Druggists have no right to prescribe. It is a wrong to the patient in most instances when they do prescribe, for when an ailment is slight then is the time the physician might do most good by averting a possible serious malady which drug store prescribing would likely permit, if it did not cause, to go on from bad to worse.

Druggists being the servitors of the medical profession and the offspring of it are as much bound in honor by the code of ethics and the statutory laws for physicians, as physicians themselves.

The charges of druggists for prescriptions is a legitimate subject for physicians to consider.

It is the duty of the physician to protect his patient in this matter, and when druggists assert otherwise they mistake their relation to the physician.

While druggists are entitled to fair compensation for time and skill, they are not entitled at varience with the usages of trade to charge one thousand per cent. or more for putting medicine like quinine in capsules, or like epsom saltz in an aqueous solution.

Pharmaceutical skill, elegance and palatability ought to be encouraged by the profession and liberally paid for by the patient, but at the rates at which some druggists charge for prescriptions, the poorer patients can have nothing left, for the usually young physician who prescribes for such needs to live as well as the druggist.

The remedy for this is with the physician. If your druggist is extortionate, boycott him by selecting a more reasonable one or putting up your own medicines.

All druggists are not extortionate. But the always good margin of profit on drugs and prescriptions has multiplied drug stores —good, bad, and indifferent, so that they are numerous as the saloons in a large city, and the more out of the way and the harder they have to struggle for existence, the more likely are they to be extortionate in price for prescriptions.

There is no kind of dealing in which a person is so helpless as a patient with a prescription. Not knowing fully its quantity and quality and usually needing it right

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away, he must rely upon the druggist's honor as to its value. If the druggist be a strictly honest and honorable man, doing a fair business, the patient will get a prescription compounded of good articles at a fair price, but there are druggists who will take all they can get. If the latter only get your prescriptions, boycott them by sending them elsewhere or by putting up your own medicines.

When a druggist argues that he is entitled to about as much as the physician for not making mistakes, he is putting too high an estimate on his skill.

Our relations with druggists has been very pleasant and satisfactory. As a rule they are high minded honorable men, and the physician's best friend. They are always such when they appreciate their true relations to the profession.

As a rule we have found druggists properly discreet and considerate of the patients purse. This may be because we have taken some pains to discriminate in favor of those who are regular graduates in pharmacy, who never discuss or explain the contents of prescriptions; who have few or no wonderful remedies of their own, and who do no counter prescribing; who recommend no patent medicines, and who have a fair business which places them above the necessity of disreputable or dishonest tricks of trade.

C. H. Hughes.

Medical Testimony in our Courts of Law

Medical testimony in our courts of law has of late years reached a degree of importance second to that of no other class of evidence. It penetrates almost every department of the law; its use is of every day occurrence in our criminal courts, and in that very numerous and constantly increasing class of civil actions, for the recovery of damages for personal injuries through negligence in the construction or operation of machinery, railways, street cars and the like, its absence would be the subject of much unfavorable comment, and unless explained, of serious and possibly disastrous effect upon the plaintiff who would venture to omit so important an element in the proof of his case.

The ordinary witness called to testify to facts of the plainest and most natural kind which he has seen or heard, or knows of his own personal knowledge, will find that under the scrutinizing eye of the court and jury, and the hostile bearing of counsel, shrewd in detecting a weak point and ready in the assault upon the same, that his path is not free from pitfalls, or his facts from a plausible misconstruction. How much less enviable then is the position of the physician called to testify to a hypothetical state of facts which involve the hidden operation of the mind; in criminal cases, where life is at stake to testify to the sanity or insanity of the prisoner? He may be asked questions which presuppose an almost omniscient acquaintance with the facts and theories of medicine, surgery and technology, or to fathom in one comprehensive answer the soundless depth of science, and to so frame his language, facts, reasons and conclusions as to be free from technicality and clear to the mind of the ordinary petit juror, whose thoughts have never strayed farther into the realm of abstract speculation than the price of butter or the weight of cheese.

If he is honest and determined to testify according to his convictions, leaning neither favorably to the party calling him or unfavorably to the adversary, even then he will be more often a disappointment than a success.

He will disclose facts which the party calling him would prefer to have hidden, or, if that were not possible, at least obscured, and he will, under a long and harrassing cross-examination, begin to doubt his own reasons, and to deny those conclusions to which he testified so positively in his examination in chief.

His position is not, it must be admitted, an enviable one, under any state of facts, but his testimony is of inestimable public benefit, and not without some personal reward. His testimony is often of the most vital and decisive character, notably, in will contests, involving the testamentary capacity of the tes-

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tator; insurance cases, where the state of health and physical condition of the deceased at the time of effecting the insurance, are in dispute; homicides, involving the effect of wounds, blows and poisons, whether sufficient to produce death; the identity of person and sex, these are all questions which the law and the public have referred to the scientific knowledge and skill of the physician for solution. Justice and right must ever go before personal convenience and the fear of being placed in an embarrassing and awkward attitude; and to the physician well fortified in his facts, his reasons and deduction by authorities recognized in his profession, the occasion should be a source of gratification rather than of mistrust.

The lines of his professional work are drawn in obscure places. His professional learning and skill are shaded from public observation by the private and personal nature of his duties. The attorney is constantly before the public, and ample opportunity is given to form an opinion of his professional attainments, but the physician's only opportunity to disseminate his views comes from the witness chair, often it is true after years of study, experiment and inquiry when ambition's candle has nearly burned out, but the impression which he there makes upon judge, jury, and spectators, when some question of science is to be made clear to them, is of lasting and substantial benefit.

The ordeal is not a pleasant one but if successfully borne, its good harvests are plenteous.

SCUDDER.

CORRESPONDENCE.

NEW YORK LETTER.

NEW YORK, Jan. 2, '88.

EDITOR REVIEW:—The most notable event of the last fortnight has been the formal opening of the new Sloane maternity and Vanderbilt clinic in connection with the College of Physicians and Surgeons. The public session occurred on Thursday last in the lower lecture room of the college building. The president, Dr. Dalton, introduced Prof. T. Gaillard Thomas, who delivered the address. He traced the growth and progress of medicine from the earliest times. Coming down to modern times, he boldly declared his belief "that vaccination and the discovery of anesthesia surpass in the beneficence of their results even steam and electricity. * * * Which would you prefer to give up—steam, with all its manifold advantages, all its blessings and its influences upon civilization, or to return to the times when that loathsome disease, small-pox, would strike a community and pass over it like a simoon, killing hundreds by a terrible death, and deforming thousands for life, to the time when a household would be stricken down, demoralized and desolated, and when beauty was transformed into hideousness in a few days?

Would you rather give up the results of that magical power, electricity, or return to the dark days when your loved ones, exposed of necessity to the surgeon's knife, would have to suffer mortal agony for hours piled on hour; when she who is dearer to you than life itself had to bear the agonies of the primal curse in the same degree as our mother Eve, and when you, yourself were dying a slow death of suffering would be deprived of the sweet bone of euthanasia?"

Our art and science in these latter days, he continued, could rightly be called "demonstrative" where before it had only been "theoretical." "Diseases of the heart and lungs were listened to, not merely looked at, the darkness of the larynx was dissipated by the laryngoscope; all canals were tunnelled for the admission of light by specula, and medical chemistry or the microscope would pronounce dogmatically as to the nature of solids or fluids removed from any part of the body."

Dr. Thomas paid an eloquent tribute to the donors of the new buildings, and at the close of his address, this "Pillar of the College," as Dr. Dalton had felicitously styled him, was warmly applauded.

The Vanderbilt clinic presents no especial features in its construction. It has large

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and very steep amphitheatre, seating about four hundred. Its rooms for work in special departments are fully equipped with the modern accessories. The Sloane Maternity, though plain outside, is within a perfect gem of hospital architecture. It has rooms for private patients, and several small wards having six or seven beds each. No paint is used in its decoration. Everywhere is polished wood, tiled floors and marble wainscoting. The ordinary iron bedstead is used, with back rest and wire springs. The mattress is thin, of plain ticking and filled with straw. The burning of the straw and boiling of the tick after each confinement will thus tend to perfect antisepsis. Dr. Jas. W. McLane, professor of obstetrics, will have the general oversight of the institution, with Dr. E. L. Partridge as assistant, and Dr. J. W. Markoe as resident. Students of the graduating class will be admitted to the wards to watch and conduct labor cases. Each man while in attendance will be obliged to sign an agreement to conform to certain rules, notable among which is one to avoid all communication with the college dissecting room.

Since my last letter the Hospital Saturday and Sunday collections have been taken. The full returns are not yet in. The withdrawal of the Presbyterian Hospital from the association has, as I have indicated, caused consid erable comment, and some of the latter has not been at all favorable to the hospital trustees. The institution however, has fared better than ever before, for all the collections in the Presbyterian churches have gone directly to it. In one church alone (Rev. Dr. Hall's) a collection of nearly twenty thousand dollars was taken up. Last year it only received a little over seven thousand dollars from the entire amount raised. It is doubtful, however, whether this new departure will prove in the long run to have been an advantageous one. Just at present our theological friends have their blood up, and money is coming in freely, but the course taken has alienated the support of many old friends of the institution.

The annual report of the Post-Graduate School's Hospital for the year ending May, '87, has just been issued. One hundred and seventy-two patients were treated in the wards, and forty-seven hundred in the dispensaries. Annual receipts seventy-four hundred dollars.

The commissioners of charities have at last succeeded in directing official attention to the institutions under their control, and have been allowed nearly a million dollars more for '88 than for '87. A part of this will be expended in the erection of new buildings to relieve over crowding, and it is also hoped to secure a better grade of employees.

J. E. N.

CHECKS TO CONCEPTION.—THE OTHER SIDE.

EDITOR REVIEW—I have "carefully and prayerfutly considered" the article "On the Evils of Artificial Methods of Preventing Fecundation, Etc.," as recommended in the REVIEW of Nov. 5, 1887. I argue many points quite differently. "Checks" and infanticide are not the only crying evils of the times. Excessive child bearing, like the jaw bone of Samson's ass is yearly slaying its thousands. Millions of human beings are physically, mentally, or morally unfit to procreate the species at all, because they necessarily entail grave hereditary diseases upon their offspring, and lives of suffering and premature death are the results, alike, to parents and children. For such persons to procreate the species, is a crime above all crimes.

Place the two evils last named in the balance against "checks" and infanticide, and the latter bound up like a feather. What is the remedy? Moral restraint, as a corrective of the evils, goes to thunder! It did not restrain David, "a man after God's own heart," and we have thousands of beautiful examples of his kind still living to day. It is nice to talk about the glory of mother hood; but if the pious doctors and their clerical brethren had to fill the shoes of the woman poor in this world's goods, with all her house-work to do and half a dozen, crying, sickly children

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clinging to her skirts and one in her arms and another in utero, they would soon be caught hustling around in search for another variety of Scripture philosophy, and they would not desist till they found it either. It is bosh to say that it is criminal to interfere with nature's laws. If nature must always have its course, what is the use of preachers, doctors, or anything else? We change effects by changing causes in other things, and it is incumbent upon us to do likewise in this matter, viz., devise legitimate means to stop this wholesale murder business. No sane man thinks of perpetuating the species of diseased animals, and such would not be recommended in the case of human beings, if the bread and butter and glory of doctors and preachers did not lie in the wake of the sick and the dying. It is not the *only*, nor even the first object of matrimony to perpetuate the species, but it is to promote the welfare and happiness of humanity in any legitimate manner possible. Marriage is not a mere matter of choice, since man did not make himself, nor his infirmities. Every unprejudiced mind knows something of the evils attendant upon celibacy (if there is such a thing). To say that there is no escape from the fiery furnace of afflictions that attend unlimited child-bearing and its consequent evils, or to say, "thus far and no farther shalt thou go," in other words to say that conception can not be prevented without injury to the parties, are parallel with the assertions of the acients, when they said that certain things "belonged only to the gods"—things that have since become the toys of children. That we do not know a thing, is no proof that there is nothing to be known.

But I cannot discuss the subject in this note, nor give you more than a very imperfect synopsis of the contents of my paper; but—I think this should suggest to you that there is abundance of room for differences of opinion on that subject. O. W. CLINE, M. D.

WHAT WAS THE CAUSE OF DEATH?

WATSON, ILL., Jan. 6, 1888.

EDITOR REVIEW.—Dec. 18th, 1887, I was called to attend Mrs. W., in her third confinement. The labor was tedious. After six hours the pains became regular, the child presented in the L. O. A., position. Just as the head was expelled a gush of blood struck my hand. I passed my fingers over the abdomen of the child and found the funis had been severed about three inches from the umbilicus. I grasped it between two fingers and almost at the same time the body was expelled. I held the funis until the child breathed and the cord was tied.

The child was small, weighing only three and a half pounds, but was well formed and cried lustily. The funis was about the size of a goose quill, and only about eight inches in length, the vessels soft and easily torn. Placenta normal in size and appearance, and came away readily.

The babe appeared to be healthy, slept well nursed, and seemed all right, except that I thought its breathing was more rapid than normal.

Ten days after birth it suddenly became hoarse, appeared colicky, as the nurse expressed it, cried for an hour, but finally became quiet, and appeared to sleep for two or three hours, and upon being taken up by the nurse, expired almost instantly.

The father is an unusually healthy laborer, never having had venereal disease.

The mother is as healthy as ordinary laborer's wives, but with a scrofulous taint. She has borne two healthy children, the youngest a very robust boy five years old.

The father's age is thirty-three the mother thirty-one.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated Meeting Dec. 3, 1887. The President, S. Pollak, M. D., in the chair. F. D. Mooney, M. D., Secretary.

DR. A. V. L. BROKAW presented a case. This young man was crippled by a rail road train one year ago. On July 1, he crawled under a car, and while sitting there with his

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arm thrown back and his knees crossed, an engine, with six flat cars backed up and struck the car and the young man was run over by the engine and cars. He then rolled down between the ties. One of the curious features was the question, in what position was he lying, inasmuch as both elbow joints were crushed, and the leg immediately below the knee, and he received a slight scalp wound. Notwithstanding these, he succeeded in getting away from the track. He was then carried to a surgeon who performed flap operations, the triple operation being done at one sitting. He was a young man, and without instruments, had nothing but a butcher-saw and a butcher-knife, and one or two artery forceps. I was afterward called to see the patient at Sullivan, Mo., and found the following condition: The flaps had separated and cellulitis had set in, and the inflammation had extended some distance up the extremities—two of them, one leg and the right arm. Inasmuch as the bones were protruding and the extremities of the limbs were masses of fungous granulations, I made an ordinary flap operation and removed nothing but the extremities of the bones, leaving all the sound skin there. The ends of the bones presented a peculiar appearance, hyper plastic proliferation had taken place there, and in the tissues were small collections of new-formed bones, which extended throughout these granulation masses. The patient did very well, and was out in about two weeks afterward. The arms, you see, are very short, and he is utterly helpless.

Dr. A. H. Meisenbach.—The patient which I have here, presents and illustrates wounds of one of the largest joints of the body, the knee joint. On September 9, while using a broadaxe, it slipped and hit him in the knee, producing a wound of over two inches in length opening the joint. He was seen shortly afterward, the joint cavity was irrigated with bichloride of mercury 1–1000 and its lips were stitched together, the limb was immobilized, an antiseptic dressing was put on and left for ten days. When it was removed, union by first intention had taken place. He had had no pain at any time, and within three weeks, he was at his usual vocation. I have here also a beautiful specimen of movable body in the knee joint, removed during July. Two years before the joint was synovitic and I aspirated it. Some time before the removal of the body I suggested such an operation, and he became convinced of its necessity for this reason. He was a sawyer. Sometimes while making a step he would drop as if shot, and he was afraid that this body would throw him against the saw and possibly kill him. It is of cartilaginous formation, which has been sessile at one time. The fibrillæ are shown torn off, and show where they were attached to the joint surface. This man likewise made a very beautiful recovery. I extracted the body without the use of an anesthetic. I transfixed the body and cut down on it, with very little pain to the patient. I took the dressing off in ten days and found union by first intention. This body is $\frac{1}{2}$ by $\frac{3}{4}$ of an inch in measurement. He has had no trouble since.

Dr. F. J. Lutz.—Lest it should appear that these operations are always attended with perfect success, I will report an unfortunate case I had in a young woman 5 years ago. She presented substantially the indications for operation which Dr. Meisenbach has detailed. It was a great hindrance to her, and she was a healthy woman. Under an anesthetic, I fixed the movable body in a corner of the joint, cut down on it, and it came out through an opening not a half inch in length. I dressed it according to the typical Lister method—eight layers of gauze and Mackintosh,—and immobilized the joint. About 18 hours afterward she had a violent chill, became comatose, and died. The time was too short for the production of septicusmia sufficiently pronounced to cause death. Perhaps the shock occasioned by opening such a joint as the knee caused it. The case illustrates by an isolated instance the fact that sometimes it is a very serious operation.

I have here what I consider a very rare specimen, a primary cancer of the liver, occurring in a child only 3 years old. It is well known that primary cancer of the liver, even in the adult, is a comparatively rare affection; usually the malignant deposit in the liver is secondary to a deposit in some other organ. Of course there is no anatomical reason why it should not occur in the liver primarily, but it is exceptionally rare to have a primary cancer in the child. Hirschfeldcites a few cases, and says it is quite rare. On account of the small number of observed cases the symptoms so far as we know, are of very doubtful character. This child was first observed during the hot summer and the parent's attention was called to the fact it had what they imagined was a summer diarrhea, and an unconquerable thirst, and it became excessively anemic. A physician was consulted who treated the symptoms for diarrhea, and ordered a nutrient diet. About 6 weeks ago, the father asked me to see the child. He was a well developed boy and presented an immensely distended abdomen, and I found

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that the superficial veins were immensely dilated, and I found a tumor pretty much the size which it now presents. Bordering on the liver occupying the umbilical, reaching to the hypochondriac region on the right side. This tumor was firmly fixed, and had a nodular feel. There were no enlarged glands anywhere, so that the diagnosis of course in the beginning remained doubtful. It at once suggested itself that it was perhaps an echinococcus, which is more frequent in the child than malignant growths; but an effort to withdraw some of the fluid by a hypodermic syringe prove futile. Then there was another difficulty in the diagnosis—whether it was connected with the liver. If so, you would expect it to move with respiration. This presented no such phenomenon, for the reason which will appear when I detail the post-mortem. Yet from what the parents told me of the history, the fact that it had unquestionably grown very rapidly, I inclined to the opinion that the tumor was malignant, and that it was connected with the liver, the only reason for this being that there was no resonance between the liver and the tumor. Then there were no gastric symptoms whilst there was loss of appetite, there was no difficulty in digesting milk and peptones and other nutritious diet, and there was no involvement of the alimentary tract. The most prominent symptom was that of a most harrassing cough, and extreme anemia. The spleen was not enlarged. The patient died three days ago, and I found on post-mortem, that the tumor was firmly adherent to the anterior abdominal parietes and connected with the liver. In none of the organs of the body was there a deposit which would indicate that the tumor was a secondary one, nor did find anywhere else in the liver, a deposit like this. The liver was comparatively normal at every place except at the fissure which divides the liver into the right and left lobes; there you see the tumor—or rather it grows from the square lobe of the liver, and it is attached on the right side to the gall bladder. It does not extend over the anterior margin of the liver very much, and it is evidently sub-peritoneal, because the tumor itself is covered by a layer of peritoneum, so that it grew subperitoneally, perhaps from the connective tissue—perhaps an illustration of that beautiful theory of Cohnheim that refers a neoplasm to the fact that some of the cells were either superfluous or misplaced. I haven't been able to have a microscopical examination of it yet. There is an indentation about the center of the tumor, where in the beginning I introduced the hypodermic needle.

Dr. F. R. Fry.—I remember to have seen three years ago, what was diagnosed by several of us as cancer of the liver in a child three years old in which the signs ahd symptomatology corresponded so accurately with the case as related by Dr. Lutz, that his description would cover the case to which I refer, distention of the abdomen, the dilated superficial veins. We got a young man to watch the casewho resiced in Carondelet, and it was simplyhis lazines that prevented on getting a postmartem

Dr. Lutz.—These was no history of cancerous cachexia other than that a distant relative of the mother died of cancer of the stomach. Nor have I been able to find any neuropathic history.

Dr. Meisenbach.—I presented to this society three years ago a specimen of tumor of the liver in the child of grater magnitude that this. It was one that I think was congenital. The liver in this case was of such enormous magnitude that it took almost the whole of the abdominal cavity. I think it was of sarcomatous origin. There is one peculiar thing about this tumor, that it seems to be isolated from the liver substance and there might be a question as to whether it originated in the liver or behind the peritoneum, and afterwards became attached to the liver by inflammatory process. As far as microscopic evidence goes, it does not show that the tumor involves the liver substance proper.

Dr. C. H. Hughes.—The age at which cancer usually makes its appearance, is at that age at which in the individual sooner or later the processes of nature, the vital forces, begin to fail. Cancer is said by all observers to be associated either with the decline of life, as a rule, or to be connected with a condition of constitutional degeneracy.

The gentleman smiles when he refers to the interrogatory as to the existence in the family of neuropathic degeneracy, upon which to assume the hereditary premature old age in some of the tissues of this child—a hereditory neuropathic degeneracy, degeneracy in the trophic neural mechanism in the organism. It has been a good many years since in this Society I called attention to the fact that upon tracing the family history of persons affected with cancer, where you failed to find antecedent cancerous diathesis, you found adequate evidence of neuropathic degeneracy, and I ventured then to make the assertion of the importance of alternate degeneracy, which as usual was received with a smile, and clamorously accepted by some of the editorial fraternity; but we find that

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Jonathan Hutchinson takes a step further,and regards cancer as a condition associated with neuropathic degeneracy—a statement which I timidly expressed years ago. Now,the cancer cell, so far as its demonstrable causative influence in the production of cancer is concerned, is as mythical as the Wandering Jew. No one denies the existence of wandering cells in the organism, or of cancer cells as proof of certain morbid conditions, but as to its causative influence, it is an improved view. How are we to account for the existence of a disease which is known to be associated with, invariably, degeneracy, and to be regarded by the ablest clinicians and pathologists, as a disease which belongs to the decadence of tissues, in a child three years old, upon any other hypothesis?

If you look into the history of the development of cancer as it appears *de novo*, you will find it appearing in individuals subjected to these nerve exhaustive strains which precipitate the decadence of life and bring about that degeneracy and furnish the soil in which the cancer grows. Take the history of Napoleon, who died of carcinoma implicating the pylorus. He succumbed to the cancerous degeneration after the strain of defeat and that inexorable exile which sealed his hopes and took away from him that buoyancy, which made his existence impossible. Our own Tom Benton succumbed in the same way after his first and only defeat, and it chafed him until the vital forces failed him and the resisting powers gave way. We had a late illustration in the man who had been able to endure the campaigns of the late war, and able to manage the army, and that greater force behind him at Washington, who succumbed under the chagrin wrought by the machinations of that cur in New York, and blasted the hopes of the proud man, and he succumbed. It is cases like this that have set some men to thinking. We concede that the view is not proved. The revelations of one generation supplant the light of the generation that has been, and that proves a dim ray to the brighter, when that comes afterward. You can see that in connection with nearly every question in pathology.

Dr. Y. H. Bond.—It will be remembered that the other evening I reported a case of cystocele in which on operating I used the continuous cat-gut suture; the operation is an entire success, the wound seems to have healed by first intention. Last week I performed a trachelorrhaphy and a perineorrahphy with the cat-gut suture; the result of the first I do not know, but the last has reunited by first intention.

Dr. Geo. H. Hulbert read a paper on "Conservative Gynecology."

Dr. Bond.—As regards the mathematical calculations, I have to refer that to an engineer; I am not capable of appreciating the subject. It is not always possible that we can estimate the vital processes by mechanical laws. There is one feature of Dr. Hulbert's paper about which I desire to take issue with him—in reference to the question of mechanical dysmenorrhea. He his disposed to dèny that mechanical dysmenorrhea exists in any case. I wish to take the position that it does exist in a very large number of cases, and in that position I not only have my own observation to sustain me, but the authority of Barnes, Symington, Brown, McNaughton, Jones, Thomas, Winkle, Schroeder, Hodge, Byford, Reeves Jackson, Marcy, Goodell, Courtney, Scanzoni, Graily Hewitt, Martin, Apostoli, De Seinetz, MacKintosh, West' Wylie and Emmett. Emmett held the extreme view at one time that mechanical dysmenorrhea did not exist in any case, but he has modified that view, and now takes the position that any case of flexion occurring above the vaginal junction with the uterus will be attended with mechanical dysmenorrhea, and a flexion occurring in the cervix below that point will not produce it. This embraces almost every author on this subject, and it is utterly impossible for us by any mechanical law to exclude the agency of vital processes. In reference to the illustration of the hose, I don't appreciate the point that he wished to make. If he intended to convey the idea that the uterus could not be flexed so as to entirely obliterate the cervical canal just as thoroughly as bending a hose can, I would have to dissent from that idea, for I know that it can be flexed just as thoroughly in the one case as in the other. During the International Congress, Graily Hewitt called attention to a specimen of that kind, in which the flexion was so great as to obliterate the canal, and yet when the cervix was pulled upon and the canal straightened the capacity of the cervix was ample. The difficulty of the cases is in the fact that the gentlemen don't take into consideration the possibility of error in their diagnosis. We have five varieties of dysmenorrhea, congestive,inflammatory, membranous, obstructive and neuralgic. And it is often the case that the gynecologist examines a patient and can discover no adequate explanation on the ground of mechanical dysmenorrhea, and therefore concludes that there is no such thing as mechanical dysmenorrhea, he makes his argument from the exception rather than the rule. Our

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observations should be extensive on the subject, so as to establish the principle. When we examine a women who is near her time of menstruation and find that there is no blood in the uterus, and yet she suffers from the same symptoms as from mechanical dysmenorrhea, the conclusion is that there is an inflammatory condition or neuralgic form of dysmenorrhea, *not* mechanical dysmenorrhea.

It is an easy matter for any member of this society to declare that such and such a procedure will accomplish no good, but the mere *ipse dixit* amounts to nothing, we require clinical facts to demonstrate this question, and when Ellinger tells us that out of 27 women operated upon by divulsion, 24 were cured, and that 11 of the 24 had children, that means something. When Goodell tells us that he performed 400 operations, and that there was not a single unpleasant result, and that 20 per cent. of the women operated on were cured of their sterility, that means something. If for no other reason, this would establish the operation, because Goodell is a man of probity and truth, and a close observer. Dr. Hulbert called the attention of the Society to a paper read by Dr. Wathen read at the Congress; in that paper, he took decided ground in favor of the operation. Marcy, Cushing, Munde, Ball, Evelete practice it—and others innumerable.

This is not the testimony of irresponsible men; it is that of reliable and painstaking observers. Wylie says: in the "Amer. System Gynecol." Eliminate failure to diagnose abscess complications and blood poisoning from lack of care cleanliness or from prejudice against antiseptics, and this operation becomes one of the simplest in uterine surgery. "Cases on which he operated ten years since, still continue well." This operation is of daily occurrence with Wylie and he has had ample opportunity for testing it. One case of anteflexion had gone the rounds of gynecologists—distinguished ones. Wylie performed this operation with absolute relief. It is impossible to mention the names of all the gynecologists in this country who perform this operation. The argument has been made that it was not necessary in order to facilitate fruition, on the ground that spermatozoa could pass through the cervical canal, let it be ever so small; the reply was, that a bowl would catch more drops in a shower than a thimble. It struck me as being a proper reply.

Stated meeting, Dec. 17, 1887. The President, S. Pollak, M. D., in the chair. F. D. Mooney, M. D., Secretary.

Dr. T. F. Prewitt presented two patients. This man, 48 years old, noticed four months ago on his arm a broad, flat, indurated swelling, indolent, not painful, which persisted and eventually ulcerated. That ulceration has persisted for some time, and the question is, what is the pathological condition. I have been accustomed to regarding all ulcerations on the upper part of the body which refused to heal as due to some specific agency. I do not include ulcerations of the leg, because they are due to disturbances of circulation, etc., but on the upper portions of the body I look for the cause in either syphilis, scrofula, epithelioma, lupus or carcinoma. This case is a little peculiar. He asserts that he never had any syphilitic taint; he is too old to regard it as scrofulous; and it does not present the characteristics of lupus or epithelioma. It looks more like a carbuncle. But the history is not that of carbuncle, and this has existed for four months. I am still disposed to regard it as something that the microscope will reveal. The other case is a patient who is about 52 years old. He is subject to epileptic attacks that occur in the night. Six weeks ago his finger became sore near the last phalanx, the cutiele was raised, and unhealthy pus was noticed. When the cuticle was taken off, new skin would form and that again would be undermined by the the unhealthy pus. The tissue presents some of the granulating material. and secretes pus which burrows. I have applied various things, nitric acid to destroy this unhealthy surface, but it has done no good, and the hand is now swollen, he is anemic and it is difficult for him to get about. I am at a loss how to class it. Both of these men are laborers.

Dr. C. H. Meisenbach.—The cases presented give me an opportunity of referring to a case which I saw some time ago. The case was that of idiosyncrasy to certain drugs. I amputated a man's second and third fingers. He was in ordinary health. I dressed the wound antiseptically and left it eight days. No untoward symptom occurred until then when he complained of pain. I found the skin had been undermined by thin yellowish, not bad-smelling fluid, and that the top of the hand was inflamed and there was a dermatitis. There were vesicles all over the hand. The inflammatory condition spread. The condition of the finger of the second patient is one known as tendo-synovitis; one sheath of the tendon and the periosteal surface are bound by inflammation. The case I refer to was not one of the kind because the deep tissues were not inflamed. I found that some years ago he had injured his leg, and that some surgeons had attempted to cure it and

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were unsuccessful. They had used iodoform dressing. Finally some one struck the right track by leaving off the iodoform. I withdrew the iodoform dressing, and from that time his condition improved. I think this a case of idiosyncrasy in regard to iodoform, which acts as an irritant in this case.

DR. C. H. HUGHES.—I will discuss the older, 52 years old, case first. I want to ask Dr. Prewitt if he can put both cases under the same category?

DR. PREWITT.—No, sir.

DR. HUGHES.—I do; I believe they are both specific. The older one, says that eight years ago for the first time he had those epileptic attacks. Epilepsy beginning late in life is in 90 per cent., so far as my observation, and in much more than that in the observation of other neurologists, of specific origin. In my experience in the many, almost universally, these cases were cured with a course of iodide of potassium, and bichloride of mercury externally. All the giants of those days thought that the bichloride solution promoted granulations. It was used also as a measure of diagnosis.

DR. PREWITT.—The man is taking both iodide and protoiodide.

DR. L. BREMER.—The statement is correct, that when epilepsy occurs late in life, as a rule it is due to syphilis; but if the man has been taking antisyphilitis treatment without benefit, it is probably not syphilis. Besides epilepsy due to syphilis and not cheked is fatal and the result is that of progressive paralysis.

DR. HUGHES.—It doesn't occur in my cases.

DR. BREMER.—Then yours are exceptions.

DR. PREWITT.—The possibility of its being syphilitic has not escaped my attention. I have said to the students that if I could trace the faintest history of syphilis, if there had been any other lesions that indicated it, I would regard it as syphilis, but he stoutly denies everything of the kind, and the only thing that looks like it is the statement that he had about the lip, a year ago, some patches that disappeared spontaneously. The other man is not taking specific treatment; if that were syphilitic we would not expect to find him in the debilitated condition in which he now is. I have even been thinking of propriety of amputating the finger. As to iodoform, I have looked at it as an irritant to the skin in some cases.

A few days ago I was sent for to see a child who had swallowed a brass bread ticket. In examining, I saw in the upper part of the esophagus this brass disk, so I passed down basket probang, in which the coin-like piece was caught, and brought the piece out. The symptoms were, the child was greatly frightened, and made efforts to vomit. There were no urgent symptoms such as are found in foreign body in the trachea.

This other specimen is a piece of omentum which I removed from a femoral hermia, which had existed for six years, and had been concealed from everybody until she was taken on Wednesday last with vomiting. I was in a hurry, made inquiry and found that she had eaten a lot of pork the night before, and supposed that that was the trouble. I was on the point of asking her if she had hermia, but forgot it. The next morning I was sent for, and suspected that there was hernia. There was a tumor in the femoral fossa, soft, doughy, indicating omentum, and an effort to reduce failed. I then gave an anesthetic and made an incision, but found that I could not get it back without opening the sac, which I did, and found a knuckle of bowel, very dark and not in good condition, still not gangrenous. I divided the neck of the sac in order to relieve it, as the neck formed part of the constriction of an old hermia which had not been reduced for years. I exposed the bowel very little, manipulating through the sac. It finally slipped back with a jerk. I then determined to treat it for radical cure, dissected up the sac and did what I do not think would be good in every case; drew down both sac and omentum and passed a double ligature through them and tied them together and cut off the omentum and sac below, stitched them together, putting on iodoform gauze and left it for a day or two, Dr. Brokaw doing the dressing. She had no rise of temperature, and the wound healed by first intention, and she is doing well. I didn't think it would do any harm to tie the neck of the sac and omentum together in this case, becuse I had manipulated the bowel mainly through the omental mass.

DR. F. J. LUTZ.—The uterus and appendages which I have here were taken from a public woman who died as the result of an abortion committed by herself a week previously. In opening the abdominal cavity, I found that the small intestines were matted together by inflammatory lymph, but the general abdominal cavity was not inflamed. I found that a second matting had taken place, that the sigmoid flexure had been drawn toward the uterus and was firmly adherent to the top of the organ, and that it covered the cul-de-sac of Douglas so that none of the contents of that space could escape into the general abdominal cavity. In this posterior cul-de-sac were about six ounces

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of purulent fluid. It was found that the right fallopian tube presented no pathological changes, but on the left side the tube was bent on itself and firmly united to the uterus, and the fimbriated extremity dipped down into the cul-de-sac, the tube being dilated to about the size of the little finger and filled with the same kind of fluid that was found in the cul de-sac. The right ovary and the peritoneal covering inflamed; the left ovary inflamed and softened. On the inner surface of the uterus near the fundus can be seen the implantation of the placenta, a portion of it still remaining, and no doubt the inflammation of the peritoneal cavity was from this. The same kind of fluid was found in the left pleural cavity—three pints. One point as to the method of treatment of abortion: I believe that the uterine cavity is washed out too frequently, generally. I don't mean to say that when an abortion takes place and temperature rises and there are indications of decomposition inside the womb, that the cavity should not be thoroughly washed out and scraped; but the long continued and forcible irrigation of the uterine cavity is done more frequently than the indications would warrant. It is a well known fact that a liquid injected into the uterine cavity finds a ready exit into the peritoneal cavity through the fallopian tubes. I don't mean to criticize the treatment in this case, but refer to it simply as one of the illustrations we have of liquid flowing through the tube into the cavity. Then it illustrates perhaps an effort of nature to attempt to encapsulate an abscess in the peritoneal cavity brought about by the local inflammatory trouble as it escaped into the general cavity.

Dr. G. F. Hulbert.—I had the pleasure of examining this patient while in the hospital about three hours before her death. It was found that she was suffering from pyemic infection and had not long to live, respiration being interfered with, besides the action of the heart. Was there any effusion into the pericardium?

Dr. Lutz.—No sir.

Dr. Hulbert.—I was not able to determine the presence of any abscess as discovered. The condition of the pelvic tissue was firm, indicating extensive inflammation there. My impression was that the inception of this case had been septic in character with a pyemia which resulted from inflammation produced by septic influences. In regard to the intra-uterine injections, I don't think that the explanation of Dr. Lutz is correct. I don't think that the injections have leaked through the opening into the tube, or that there has been any direct flow of pus or liquid from the cavity of the uterus through the tube. Of course with the imperfect history, it is impossible to say whether it is an old salpingitis, or one following the abortion. Excluding the fact that it may be an old salpingitis—and I think that really was the pathological condition, however, from the thickening of the tube—I think that the cause of the salpingitis was due to the septic influence started in the cavity of the uterus by the remains of the decomposing material; the inflammation extending through the tube involving the peritoneum, with a result of suppurative peritonitis—not from a supply of pus through the tube. I don't think the intra-uterine injections have had any influence in determining the inflammation in the tube in this case.

Dr. H. C. Dalton.—The patient came to the hospital last Wednesday a week, stating that she had passed a wire into the uterus and had scraped it, and had aborted four days before admission. When I saw her it was 9 o'clock at night; she had high fever, evidence of septicemia. I dilated the os and scraped out the uterus, I supposed I had scraped the placenta entirely out, as I got a large quantity of it away, I then injected the uterus with bichloride of mercury and hot water, and her temperature went down to normal the next morning. Her fever arose again the next day when it went up to 102°. We washed her out again, and afterward very frequently, as often as the fever rose—sometimes it would rise two or three degrees in three hours, and we would wash again. We gave stimulants and cinchonidia. She was there some eight or nine days before she died. The case went from bad to worse from the start.

Dr. Bremer.—I had an opportunity of seeing the uterus in Dr. Lutz's office. Some of the gentlemen will remember that I discussed a case presented by Dr. Dalton, of malignant emphysema, a consequence of abortion, and I thought I would find another like it in this case, but there were none of the symptoms. My examination of portions of the uterus and ovary is not completed yet. The etiological interest of this case is as to what the nature of the poison is that was introduced. Of course there must have been a specific poison which clung to the uterus, from the instrument that was introduced. Another point: It is the misfortune of these professional abortionists that whenever they get into hot water they keep in it, because they carry the specific poison on their instruments and infect almost every woman they get hold of, this leading to their detection.

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BOOK REVIEWS.

BYFORD ON DISEASES OF WOMEN—FOURTH EDITION. Thoroughly Revised, Rewritten and Enlarged by over One-Hundred Pages, With Three Hundred and Six Illustrations. One Hundred of Which Have Been Specially Drawn and Engraved for This Edition. P. Blakiston, Son & Co. Publishers. 1012 Walnut Street, Philadelphia.

The distinguished Professors Byford, of Chicago, are indeed to be congratulated upon the production of so excellent a work upon "The Diseases of Women", as they have favored us with in this fourth edition of their work. Practically, it is almost a new work and I but express my candid conviction when I say that I regard it as one of the very best works to be obtained upon this subject. It embodies more thoroughly all that is known in this department of medicine, at the present time, than, perhaps, any other similar work.

So many actual advances in gynecology have been made in late years, that the necessity for new works to embrace the accumulated intelligence of only a few years back, has become a real one. The fair, candid, learned, and impartial manner of dealing with the various topics treated, excites the admiration of the earnest searcher for truth.

Whilst the views of others are presented to a degree essential to a complete portrayal of the literature of the various subjects treated, yet there is no lack of individuality in the work. Conclusions are reached, whenever facts admit, and they are sustained with clearness, fairness and logic. One is impressed with the conviction that the governing principle in dealing with all mooted questions is a desire to elicit the truth, rather than (as is too often the case) to maintain some pet theory.

There are some features in the technique of operations that do not commend themselves to me, but so far as that is concerned, every man acquires the habit of doing things in a manner best suited to himself; and if the principles that govern are correctly conceived, no fault can usually be found upon that score. An important correction of D. B. Hart's conclusion as to the angle of the vagina with the horizon, whilst the woman is in the erect posture, is to found in a foot note on page 30 wherein it is shown that the vagina passes back at an angle of from 30° to 45° with the horison, instead of 60° as claimed by D. B. Hart.

In the treatment of vaginismus I find no mention of total extirpation of the hymen, as a means of cure, a method of practice from which I have had most happy results.

On page 644, I find an error in calculation pertaining to ergot, 200 grains Squibbs ext. ergot dissolved in 250 minims of water yield 360; minims, one grain extract of ergot is equal in strength to 5 grains of produced ergot, hence each minim represents $2^{139}/_{180}$ gr of powd. ergot, instead of six grains, as represented. However the error is not a serious one in view of the dose indicated.

Considering the readiness, facility and immunity of forcible dilatation of the cervix uteri to a degree sufficient to admit of the ready introduction of the curette, it seems to me surprising that the use of tents should be recommended for that purpose. The conclusions arrived at, that the change of life does not give origin to the diseases that are of common occurrence at that period, but merely sustains a coincident relation, receives my most hearty concurrence. It seems to me strange that such fallacious sentiments should have obtained so long upon this subject.

The feature of strongly marked flexion favoring gravitation to the fundus is more clearly indicated than in any other work that I have read. And I believe that this condition of things possesses a measure of importance in connection with salpingitis that has not been proberly estimated.

I feel thoroughly pursuaded of the great excellence of this work, and the reflection that it is a product of the West affords me great pleasure.

Y. H. B.

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THE WEEKLY MEDICAL REVIEW.

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REPORT ON PROGRESS.

NEUROLOGY.

BY C. H. HUGHES, M. D.

I. LATER VIEWS OF CEREBRAL LOCALIZATION.

II. THE NEUROTIC THEORY OF FEVER—TWO THEORIES CONTRASTED.

III. UTERINE DISEASE AND INSANITY.

IV. CEPHALALGIA, MIGRAINE AND NITRO-GLYCERINE IN DIFFERENTIAL DIAGNOSIS AND TREATMENT.

CEREBRAL LOCALIZATION.—GOLZ VS. FERRIER, MUNK AND OTHERS.

The *Cleveland Medical Gazette*, for November 1887, contains a very attractive review of "Golz, on the Functions of the Cerebrum," by C. Sihler, M. D., Ph. D., of Cleveland.

The whole is presented in such readable shape that we should be glad, had we space to present it entire, illustrations and all, to our readers, especially since Golz' valuable work has not been translated into the English language.

This work of Friderich Golz, of Strasburg, *Verrichtungen des grossen Hirns*, is however, familiar to some of our readers as containing, among other things, the most vigorous and best sustained attack upon the localization doctrines of Ferrier and Munk, except the equally strong objections of M. Brown-Sequard.

Dr. Sihler gives in this review, only the substance of Golz' fourth essay, in which Golz discusses particularly the doctrine of the localization of functions as upheld by Ferrier, Hitzig, Munk and others. The essay is accompanied by six finely executed colored, life-size figures, showing the brains in their natural appearance, from which the fine outline drawings accompanying this article are taken. Figures 1 and 2 are of the same size as the original, the remainder reduced to two-thirds of the size of the original drawings.

Before giving details, however, attention must be called to the method used and to one very important point in the reasoning of Golz. While Golz formerly employed a stream of water applied to the brain substance by the aid of a peculiarly constructed cannula, washing away the brain-substance, in his later experiments White's dental drill was made use of, provided, of course, with such end apparatus as allowed to remove portions of brain-substance of definite extent as well as definite depth.

Preliminary to a criticism of Ferrier's hunger center he says it is very important to make a distinction between the transient and the permanent phenomena. Thus shortly after an animal has a certain amount of grey matter removed it will show a certain series of disturbances; in the course of some days or weeks some of these will have disappeared; others, however, will remain as long as the animal lives, and only these latter symptoms are to be attributable to the defect in the brain substance. To illustrate: dogs upon which several operations have been performed will, after the last operation, often present an entire absence of desire for food, so that in one case such an animal had to be fed artificially for fourteen days. Gradually these animals regain their desire for nourishment, and will, in various ways, show that that fundamental impulse, hunger was not extinguished in them. Now one would make a serious mistake if the condition in those ani-

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mals soon after the operation were allowed to be admitted as sufficient for the establisment of a center of hunger as Ferrier has done.

When the spinal cord of the dog is divided in the dorsal region, for some time after the operation it looks as if there was not a single center for reflex action in the cord, the hind limbs hanging down as lifeless as though all the nerves coming from and going to the cord were cut, if the animal is so held that the limbs hang down free, and remaining perfectly quiet if mechanically irritated. But in eight weeks, if the animal's hind limbs will be allowed to hang down, they will not be at rest a minute, both legs being pulled up alternately with the regularity of clock-work, and pressure upon the paw will be answered by a powerful jerk. In short, the cord of the dog shows now a greater abundance of reflex activities than even the cord of the frog. As this reappearance of functions in the cord is not due to a healing together of the cut ends, this explanation seems the most reasonable; The disturbance due to the operation and the healing process exerts an inhibitory action [a sort of shock] on the centers of the cord. As soon as this influence vanishes, the centers resume their old activities. The disappearance then of the reflex movements would be an example of the transient phenomena, while the want of conductive power between the brain and the posterior extremities would be a sample of the permanent disturbances due to the cut. But if a simple cut has such a marked influence on the cord, any operation on the grey matter of the brain may be expected to have some analogous influence on other portions of the cerebrum, cerebellum and the basal ganglia, and perhaps even the cord.

In attacking the problem of the localization of functions in the grey matter of the cerebrum, Golz reasons thus: Before trying to get at the function of some small area, would it not be more advisable to make comparisons between (1) dogs which have the whole grey matter removed on both sides—as far as accessible—(2) dogs which have the posterior quadrants; (3) dogs which have the anterior quadrants of thir cerebral hemispheres denuded; (4) dogs in which but one side has been operated on, and (5) dogs in which an anterior quadrant of one side and a posterior of the other side have been destroyed? If there are many small areas then in an operation in which *e. g.*, two whole anterior quadrants were destroyed, a great number of centers would be thrown out, and we might expect a very marked difference between this dog and one in which the entire posterior quadrants had been subjected to the experiment, and either of these would differ materially from an animal in which all the four quadrants had been operated upon.

Let us now see what the experiments teach on this question.

One of Golz' experiments shows the surface of a brain operated on four times (always, of course, under chloroform) on the following dates: July 2, 1879, anteriorly on left side; October 7, 1879, posteriorly on right side; December 2, 1879, posteriorly on left side; February 10, 1880, anteriorly on right side, the whole or nearly the whole motor aria being destroyed.

One year and ten days after the last operation the dog then in good health, was killed. It weighed 12.5 kg. and measured from root of tail to mouth 75 cm. The remarkable fact however is that the brain of this dog, hardened in Mueller's fluid, weighed but 13 grms., while the normal brain of a dog of 76 cm. length weighed as much as 93 grms. We see then what an enormous shrinkage the brain sustained from the operation, and it will be interesting to note the condition of the dog after the last operation.

After the first operation the animal showed diminished sensibility of the skin of the entire right side and diminished vision on the same side, these symptoms disappeared almost entirely in three months. Similarly after each operation the greater part of the disturbance due to the same disappeared to a large extent. After the last operation the dog was unable to eat and had to be fed, but after some weeks it was able to devour a big meal without any assistance. After entirely

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recovering from the last operation the dog was fully able to walk about, generally keeping its nose near the ground, snuffling. On slippery ground it showed a tendency to lose its footing. It seemed almost blind, so that it would have walked into a big gas flame if not prevented. But as a matter of fact it was not blind, as can be seen from the following. It was the dog's custom to walk about in its cage when hungry, when he never bumped his head, but made the proper turns in each corner. Upon noiselessly opening the door of the cage and admitting the full daylight, the animal when reaching the door did not make the usual turn but went for the opened door to walk out, nor had it any trouble to find the opening if by a board the same was partly closed either from the right or left side. When its eyes were closed with sticking plaster it grew very angry, and tried to remove the same with its fore-paws; being too awkward to accomplish this, the dog lay down quietly in the corner of its cage. On the following day it commenced to wander about in the cage but now continually was knocking its head against the walls of the cage, so that the noise could be heard at a distance; nor did it place its fore-paws on the rim of the cage as it was accustomed to do. The dog was not deaf, inasmuch as it could be roused from its sleep by the aid of the voice; but neither angry nor flattering words, nor the barking of other dogs had any effect on it. As a rule the animal would distinguish between things eatable and not eatable, but was not fastidious, and would crush a piece of wood as well as a piece of bone. Cigar smoke and chloroform vapor (both very obnoxious to normal dogs) it did not object to. The sensibility of its skin was quite obtuse, but no part of the body was devoid of sensibility. Decided pressure upon a paw would not only induce the dog to withdraw the limb, but would also set the dog into a fit of fury.

The animal showed no interest in any other dog, nor in man; no sign of sexual instinct was present. While after the first two operation it was inclined to play, it could not now be induced to do this.

The inability to utilize the impressions derived from the senses could best be seen in the way the dog took its food. It had no trouble to take its meals from a vessel in the corner of its cage; but when walking about in the room it would, even when hungry, stumble over the same, not knowing what to do with the same, and even when its nose was pushed into the same, it was only able to grasp a mouthful or two, and would soon be biting the rim of the vessel and lose it altogether, nor was it able to find it again, bones the dog was fond of eating, but was unable to grasp them properly with its forefeet.

Goltz points out that the observations on this dog tally badly with either Ferrier's or Munk's brain geography. It will be observed that the frontal lobes are preserved. According to Ferrier, Goltz says, these are the centers for the intelligence. But a greater idiocy than this dog presented can scarcely be imagined. Munk (according to G.) locates the sensory centers for the rump in the intellectual area of Ferrier, and according to his brain chart the animal should have shown loss of motion and sensation in hand, foot, and tongue. But its sensation in the rump were not better than anywhere else, and it was not only able to walk but also able to make an effort in removing the sticking plaster from its eyes.

Another figure shows the brain of a dog operated upon June 2, 1880, posteriorly on left side and Oct. 17 1880, on right side also posteriorly. February 14, 1887, the animal then in good health was killed.

Both posterior lobes are greatly shrunken, and the cortex has been removed to such an extent that the entire visual area of Munk (acc. to G.) has been removed.

This dog was in a condition of moderate idiocy. Let loose in a room it would run about in good spirits, paying attention to nobody in particular, with the tendency to raise itself on its hind legs. All its actions presented a lack of concentration and attention. If a second dog was brought in, the animal

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smelled of it for a moment, but soon ran off. Sexual instinct was not wholly absent. When called it would run up at times to the person calling, but would be just as apt to run up to some other party. This dog would not allow other dogs to partake of its meals, but would growl angrily at the intruder. It was able to take its food and drink with the same dexterity as other dogs, and had no trouble in handling bones with its fore-paws. Of a great deal of importance is the fact that the animal was able to see quite well out of both eyes; it did not only avoid obstacles in running, but jumped over a stick held in its way. The vessel containing its food if placed in its cage it found at once, but pieces of meat thrown on the floor it found but slowly. Menaces with the fist or whip produced no fear, nor did cracking with the whip or loud calling. After the first operation, dog's flesh was refused; after the second, it was partaken of, nor were tobacco smoke and chloroform vapor obnoxious to him.

The next figure shows a brain, both anterior lobes of which were operated on July 30, 1880. November 17 a transverse cut was made with the drill on left side, severing almost all the denuded anterior portion from the posterior part. February 7, 1881, the same operation was made on the right side. But the animal died the following night, having been walking about in its cage almost the whole time.

It will be seen that almost all of the "motor area" is denuded of its grey cortex; yet it must be pointed out, that in walking and running this dog showed no asymmetry in the use of its limbs. All its motions were of a brusque and hurried character. It was difficult to keep the animal quiet long enough to dress its wounds. While the dog was able to raise himself on his hind feet and to jump, these movements were performed in a clumsy manner. On gnawing a bone, it had difficulties in holding the same with its fore-paws. Skin sensation probably was obtuse, but firm pressure the dog resented by angrily pulling away the offended member. Immediately after the first operation, the sight in both eyes was very poor, but soon improved, so thnt two months afterward it was inpossible to say that in this respect the animal differed from a normal dog. Pieces of meat thrown about the room, the dog was able to find, and didshow fright when menaced with a whip. It did not allow other dogs to partake of bones given to it, and showed sexual instinct. That its intellect was diminished was shown by an accident. Instead of making a motion backward to free itself, it worked itself forward, and deeper and tighter, until released by the attendants attracted by the howling.

Gotlz says, that if there be any truth in the localization of functions, we might expect a marked difference between a dog with two symmetrical defects of brain-substance anteriorly and a similar defect posteriorly, and a comparison of the two dogs just described must be of special interest. Sihler quotes the following passage:

"A judge of dogs who should have observed these two animals side by side, would have given his opinion that the dog with the brain-defect posteriorly, in his whole demeanor, seemed the more stupid of the two, but that the other dog also seemed to be possessed of but little intelligence. The observer further could not have failed to notice that the movements of the dog operated on anteriorly were more clumsy, and that the dog was more restless. No one not initiated would have expected, to judge from the behavior of the dogs, that they had experienced any injury to their brains. The difference seemed to be of the same degree as one is apt to find between dogs of different race and different natural talent. Only if the attention was drawn to the fact that the dog that seemed the most stupid was not alarmed by menaces, did not object to tobacco-smoke and did not hesitate to partake of dog's flesh, then one could gain the proper conception of the intellectually lower animal. The result then of the comparison of the two animals would be about this: a dog having lost the cortex of the posterior quadrants of his cerebral hemispheres, is a more idiotic animal

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than a dog operated on anteriorly. Sight, hearing, smell and taste are more obtuse in his case. A dog having lost the cortex of the anterior quadrants does not show the same degree of obtuseness of the higher senses; on the other hand, the sensation of the skin is blunter. The latter condition seems to explain the fact that its motions are more clumsy than those of the animal with intact anterior lobes."

The next figure shows the brain of a dog operated on on the left side only, anteriorly, May 25, 1880, and posteriorly, Oct. 28, 1880, and killed in good health March 7, 1881.

This dog could scarcely be distinguished from a normal dog in spite of the enormous defect in brain substance; was well trained and obedient towards man, while domineering against its fellow dogs, and exhibits a greater degree of intelligence than many a dog with its brain intact; nor could anything abnormal be observed in the way the extremities were made use of in walking and running. When busy with a bone, he seemed not to be quite able to perfectly hold the same with the right paw. The dog evidently did not see as plainly with the right eye as with the left. From observations communicated in the first essay, Golz expected that artificial closure of the left (the perfect) eye, would reveal very marked defects of vision. This, however, was not the case. The animal not only avoided all obstacles in walking, but at once approached the person calling it, quickly picked up pieces of meat thrown for him, and was frightened by menacing gestures. Thus an animal with extensive destruction of one hemisphere may present but moderate disturbances of function.

At first thought, one might be inclined to think that an animal operated on crosswise, that is, anteriorly on one side, and posteriorly on the other side, would show the same condition as the animal just now described. But this is not the case. Evidently the interference of function extends beyond the confines of the operation.

Another dog, operated on July 2, 1879, anteriorly on left side, and October 7, 1879, posteriorly on right side, between October 7 and December 2, when a third operation was performed, the dog presented the phenomena of an animal operated crosswise. Immediately after the second operation there was present a very marked disturbance of vision of both eyes; gradually the dog learned to utilize its vision to such a degree that it was able to catch pieces of meat tolerably well, but showed no fear when menaced with the fist. The right fore-paw presented more obtuse sensation than the left. In gnawing bones it utilized principally the left. Towards the end of November the animal impressed one as decidedly stupid.

After the third operation the moderate degree of idiocy increased. In spite of destruction of the anterior quadrants, the animal was able to walk firmly, and lost its footing only on slippery ground. After closure of the left eye the dog moved about more carefully but avoided larger obstacles with certainty; other dogs it did not allow to partake of its meals.

The conclusions which Golz reaches he sums up thus:

(1). The assumption of circumscribed centers in the grey substance of the brain serving definite functions cannot be sustained.

(2). There does not exist then a definite patch of the cortex dedicated exclusively to vision, none exclusively to hearing, smelling, taste or general sensation.

(3). It is imposible permanently to paralyze any muscle and to remove the same from the influence of the will through any defined destruction of the brain surface.

(4). The physiological phenomena, which lead us to infer intelligence, feeling, passion and natural impulses, do not depend on functionally distinct areas of cortex.

(5). Destruction of the anterior portion of the cerebral surface produced disturbances due to loss of brain-substance which in some points differ from those observed after loss of the posterior portions. These differences may perhaps be explained by the injury done to the conductive tracts passing into the peduncle of the brain.

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The Neurotic Theory of Fever.

Dr. J. B. Marvin, professor of the Theory Practice of Medicine in the Kentucky school of medicine, in a paper read before the Kentucky Medical Society at Paducah, June 14, 1887, thus discusses the views of Maclagan on pyrexia and hyperpyrexia, and the neurotic theory of Macalister on the nature of fever:

These gentlemen treat the subject from different standpoints, and their conclusions are not in entire accord, but they represent the outcome of physiological teaching on animal heat, and each suggests, according to his respective views, hypotheses more or less satisfactory in explanation of the nature of fever. Both start from the same premises, viz., that fever is essentially a disorder of body heat; that in health body heat balances heat loss; hence the stability of temperature.

Dr. Maclagan includes heat among the excretory products to be eliminated from the system at the same time and manner as urea and carbonic acid. He rejects Traube's theory that fever is due to retention of heat, consequent on contraction of minute arteries. Such a condition, except in the initial stage, is inconsistent with the thermometric course of pyrexia. As a matter of fact there is an increased elimination of heat in fever, due to heat acting as a stimulant to heat elimination. Increased formation of any product leads to stimulation and increased activity of the organ by which it is eliminated. Increased formation of heat gives rise to increased activity of the heat eliminating function of the skin. Hence before an attack of fever has lasted many hours or days, increased formation of heat is balanced by increased elimination, and no further rise of temperature occurs, though the fever process continues unabated.

Example.—Typhoid Fever.—A healthy adult gives off heat enough every half hour to raise the temperature of his body 1°C. Were heat to be formed uninterruptedly at this rate without elimination, the body would reach the boiling point in thirty six hours, but owing to balance between heat production and elimination the temperature remains at 98.5° F. In fever, heat production is greatly increased. Were elimination to remain as in health there would be no limit to the febrile range of temperature. In fact, owing to increased elimination and not retention the temperature in pyrexia rarely goes above 106°F. Ord's hypothesis that in the process of tissue formation heat is rendered latent and is liberated in the febrile state is rejected as inadequate to explain the excessive heat production that occurs—pure hypothesis. Dr. Maclagan draws a sharp line between pyrexia and hyperpyrexia. All pyrexiæ he explains in terms of metabolism by the so-called combustion theory. Regarding heat as an eliminatory product, in the specific fevers, the contagion consumes the store of albumen intended for the repair of the tissues, and the water necessary for tissue metabolism, causing the tissues to consume their own substance for lack of replenishment from albumen and water normally intended for them, giving rise to increased elimination of excretory products, heat, urea, CO_2. Hyperpyrexia consists in temperature running from 107° to 110° F., or higher, with coincident development of alarming nervous systems, usually resulting in death by coma. Examples: hysterical, heat apoplexy, and rheumatic. The combustion theory is inadequate to explain these cases. The nervous symptoms are not caused by the hyperpyrexia, but are indicative of the nervous disorder which produces the hyperpyrexia. The neurotic theory explains these cases, as well as most ephemeral fevers and fever due to non inflammatory lesions of the nervous centers. These theories are not antagonistic. Both are necessary.

Dr. Macalister's lectures will deservedly attract wide attention. He gives us a new terminology and new conceptions, and places the pathology of fever in closer accord with modern physiological teachings. He makes no mention of the etiology of fever, nowhere refers to bacteria. He expands the neurotic theory to cover all forms of pyrexia. This thermotaxic mechanism is the highest and most essential of all the factors concerned in the maintenance of the body heat. It is the ea-

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iest deranged, and is the connecting link of all pyrexiæ. The nervous mechanism concerned in heat loss (thermolysis) is that of the vaso motor and respiratory systems, each possessed of motor and inhibitory functions. The vaso-motor system is the great agency by which heat loss is regulated. Heat production (thermogenesis) takes place largely in the muscles, not dependent upon, but largely increased by their contraction. A nervous mechanism presides over thermogenesis similar to thermolysis. This mechanism is twofold, one exciting thermogenesis, and accompanied by destructive metabolism; the other inhibiting thermogenesis and subserving destructive metabolism. One is catabolic, the other anabolic; one motor, the other inhibitory; one exciting muscular contraction, the other relaxing the tissues. Thermogenesis is placed in the vital scale a little higher than circulation and respiration, and a little lower than voluntary muscular action. As yet there is but scant evidence of the existence of these thermal nerves.

Wood claims to have found a thermogenetic center near the crucial sulcus, and Aronsohn and Sachs find a heat-generating center near the inner side of the corpus striatum.

The thermal nervous system has three parts—thermotaxic or adjusting, thermogenetic or producing, and thermolytic or discharging. Disorder of the first (thermotaxic) implies irregularity of temperature only; of the first and second (thermotaxic and thermogenetic) implies heightened temperature and increased body heat; that is, ordinary fever. Of all three (thermotaxic, thermogenetic and thermolytic) hyperpyrexia, dangerous, increase of heat and steadily rising temperature. The three mechanisms are successively evolved as we ascend in the animal scale. Cold blooded animals have little more than a thermolytic or heat-losing mechanism. Infants have only the thermogenetic and thermolytic, there being hardly any adjusting mechanism, as is shown by the instability of their temperature. Fever is a dissolution process. The last mechanism involved (the thermotaxic) gives way first, then the thermogenetic, and lastly, the thermolytic. Conversely, when the patient convalesces, thermolysis is first restored to normal, then thermogenesis, then thermotaxy.

Uterine Diseases and Insanity.

The *Philadelphia Medical News* has an eminently timely article on the relation of diseases of the reproductive organs to insanity in woman, giving a record of ten years of progress in clinical experience, presenting conclusions quite at variance with the far too radical views put forth by Storer some years ago, which started the profession wrong, and bringing back medical convictions on this subject into line with the experience of the older alienists. This is but the rational conclusion which all must reach when the fact is given its just weight in the judgment, that the relative proportion of the insane population of the asylums is almost equal, with a slight preponderance in favor of the sex that has no uterus.

To discover uterine disease among insane women is no proof of its causal relationship to insanity. However, we quote as follows:

It is hardly ten years since it was deemed important for the proper care of insane women in hospitals for the insane, that physicians who were women should have a place on the medical staff. No question as to their right to become applicants for such positions, or as to their legal qualifications, had arisen but it was urged as an important consideration that from their inherent constitution they might exhibit more sympathy in the care of their afflicted sisters than might be expected from the so-called sterner sex; and that a woman could not give that assent to a personal examination that she may give in a sound mental state; and if she felt disposed to resist an examination, it was highly improper for any but a female physician to make it, if ever necessary, under these circumstances.

The departure was urged by some from an honest assumption and belief that a large proportion of insanity among women was due to

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those diseases and disorders that are peculiar to their sex. Non-professional persons, politicians, and others actuated by purely sentimental reasons, who profess to believe in equal rights, in the elevation of women to a higher plane, and that seeming disabilities should be removed, so that they might not be debarred from having a fair chance, also united in invoking legislation to make the appointment of female physicians in the asylums compulsory. In the absence of any legislation, such appointments were always considered within the scope of the appointing power and, since the agitation of the question, female physicians have been appointed in several asylums without legislative requirement, for reasons considered good and sufficient. In the State of Pennsylvania, the women's wards of two hospitals have been in the sole charge of female physicians, and wherever they have been connected with an asylum service, no obstacle has been placed in the way of the study of the relation of diseases of women to insanity, so that we ought now to be in a fair way of arriving at some established results. From published reports and expressions of opinion thus far, and the absence of any expression on the subject where we might have looked for it, we cannot conclude that these diseases form such an important factor in the production of insanity as has been alleged. In a total population, where women form nearly an equal part, we might infer that if diseases of the sexual organs of women were a prolific cause of insanity, the number of insane women would greatly outnumber the insane males, whereas the reverse is true. As a matter of fact, if we trust to official reports, so called women's diseases figure among the least of the agencies in the production of insanity. What is a frequent concomitant coincidence is too frequently mistaken for a cause. How far do these reports sustain this allegation?

According to the report of the Committee of Lunacy of Pennsylvania for 1885, an even one thousand women were admitted to the various asylums of the State. In the published table of causes three of the thousand are reported to have become insane from uterine disorder and disease. In the report for 1886, of 733 women admitted, the number reported is the same. Dr. Margaret A. Cleaves, Physician, Female Department, Harrisburg Hospital for Insane, in the 33rd Annual Report, says: "My own actual experience convinces me that at least thirty per cent of insane women are the subjects of lesions of the reproductive organs." * * * "The whole subject is one of much interest to me, but I cannot yet clearly discern the full extent of the influence that diseases of the reproductive organs have upon the insanity of women." In reference to treatment: "My experience does not justify me in the belief that the percentage of recoveries will be increased by such special treatment as I had hoped." Dr. Alice May Farnham ("Uterine Disease in the Production of Insanity, *Alienist and Neurologist*, Oct., 1887), with an idea of arriving at some conclusion in regard to the relative value of uterine disease as an etiological factor in the production of insanity, conceived the idea of comparing the result of the pelvic examination of a certain number of patients in the Willard Asylum with the same number of mentally healthy women of the same social class. "The result was somewhat surprising. Out of thirty mentally healthy women but four were found in whom the pelvic organs were in a condition of health. Out of the same number of insane women, taken *seriatim* from the patients of two wards, six were found in whom the pelvic organs were in a condition of health. Were uterine disease really so powerful an agent in the production of insanity, it would be a matter for wonder that, with the alarming prevalence of such disorders, so few women exhibit profound nervous disturbances."

The testimony of Dr. Skene and others, in the same direction, could be adduced, but enough is cited to show that there is much professional as well as non-professional sentiment among physicians and the community at large on this subject that has no other foundation than conjecture. Disorders of the reproductive organs, like those of other organs

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with intimate relations to the nervous system, may have an influence in lowering the natural standard of health, but as an active, direct agent in the production of insanity they are greatly overestimated.

Cephalalgia, Migraine, and Nitro-Glycerine in Differential Diagnosis and Treatment.

A number of years have passed since the reporter, in the pages of the *Alienist and Neurologist*, called professional attention to amyl nitrite as an agent of diagnostic value in doubtful states of cerebral anemia or hyperemia. Since then nitro-glycerine, or glonoin, has come into therapeutic use, and the excerpt will show the progress making in the direction of diagnosis as well as therapeutic through the use of nitro glycerine. The *London Lancet* gives the following interesting translation of a recent article on the subject by Dr. Trusevitch, which originally appeared in the *Ejendelnaya klinischekaya Gazetta*:

Dr. Trusevich (adopting in the main Dr. Day's classification, whose work on headache he has translated into the Russian), generally used a 1 per cent. alcoholic solution, though in a very obstinate case the 10 per cent. solution was used, two drops being first given, and, after an interval of two minutes, three more. The result of this heroic medication was that the patient, a girl of fifteen, became pallid, and her pulse very weak; however, a little water and some smelling salts quickly revived her, and she was none the worse. The nitro-glycerine had no effect on the headache, which was of a persistent character, and was probably due to some organic lesion, perhaps an affection of the cranial bones. As a rule, two or three one-drop or two drop doses of the 1 per cent. solution placed on the tongue at intervals of a very few minutes sufficed to arrest the headache. The conclusion arrived at was, that all cases which depend entirely, or almost entirely on a vaso-constrictor neurosis are immediately curable by nitro-glycerin. In cases where the cerebral anemia is artly due to deficiency or poorness of blood, milk, iron, arsenic, quinine, and other tonic remedies are of course, required in addition to the nitro-glycerine. The chief indications for the successful treatment of migraine by nitro-glycerine are pallor of the face and a paroxysmal character of the pains, also their augmentation on pressure of the carotids, and their diminution when the head is lowered. In "nervo-hyperemic headaches" nitro-glycerine is useful, but it only acts indi rectly by dilating the vessels. in other parts of the system, and thus relieve the congestion in the cerebral vessels. It is positively injurious in headaches depending on passive hyperemia. As a rule, he thinks that if nitroglycerine fails to relieve, the prognosis is probably bad, as the pain is generally due to some organic lesion, such as thickening of the fibrous coverings following chronic alcoholism or syphilis, or to some osteophyte caused by periostitis, or lastly, to morbid changes in the cranial bones. In some headaches of rheumatic origin, nitro-glycerine appears to have some effect, but Dr. Trusevich thinks that in others massage would probably be more beneficial. Where headaches are due to heart, lung, or to hepatic disease which causes passive congestion in the cerebral vessels, nitro-glycerine cannot be expected to do much good.

ORIGINAL ARTICLES.

INAUGURAL ADDRESS.

BY YOUNG H. BOND, M. D.,
President of the St. Louis Medical Society.

In consequence of your very complimentary action towards me, on last Saturday evening, I stand before you to-night, to perform my role in re-enacting a custom, probably co-existent with the organization of this society—a custom imposing upon the newly elected president, the obligation of delivering an address, preliminary to the assumption of his official duties.

The occasion awakens in me unusual emotions and contemplations. I am brought to an appreciation

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of the fact, that one of the leading results of this initiatory requirement, is the substitution of a spirit of humility, and a sense of unworthiness and insufficiency, where otherwise pride and vanity would be likely to obtain. I do not know any exaction the attempted compliance with which, impresses one more powerfully with a sense of his unworthiness and inadequacy. Were it not for the restraining influence of that sense of my incapacity, developed by the necessity of this address, I fear that I should experience more than a becoming sense of pride, in the reflection that you had seen fit to extend to me, unsought, this your highest expression of honor and appreciation.

To be the recipient of the esteem, confidence and hearty good-will, of so learned, intelligent and cultured a body of gentlemen as compose this society, excites in me a profound sense of gratification and pleasure. Nor am I insensible to the fact that the position to which you have assigned me, has seemed worthy to be filled by those, whose names constitute the brightest galaxy of the medical profession of St. Louis; a position that has been graced by such names as those of Hodgen, Beaumont, Linton, Waters and so many others departed this life in enduring fame and renown, that the mention of a few of their names, seems an invidious distinction; a position that has been filled by so many of the most distinguished and learned of our living members,—should very properly be regarded as an emblem of professional honor and preferment. And yet so far as I am individually concerned, I do not pretend to arrogate to myself any such features of worth as are commonly attached to the place; I do not take to myself any share of compliment,other than that which comes from the indulgent goodness of warm friends, and the belief that good judgment, and an upright purpose, will characterize my administration. I feel that I am a mere instrument—an accidental instrument, it may be—in the policy of your affairs, and yet I look upon this preferment, as a magnificent compliment, and one that I most heartily thank you for.

I appreciate that the position is one of responsibility, one calling for a wise policy, to the end that the greatest scientifie interest and encouragement may attend. I think that the logic of the situation, will sustain me in the statement, that at no time in the history of this society, has there been collectively, so great a degree of scientific intelligence; nor more of the spirit of progress, and ardent zeal, in the pursuit of medical acquirement. Ours is an age of scientific extension never reached before.

With this increased knowledge comes increased responsibility to all of you. Every prolongation of medical science, means amplification of your labors, to the end that you may apprehend all that is known of your pursuit, and be enabled to extend therefrom. I feel that the responsibility and obligation attaching to your presiding officer, goes apace with that which is yours. With your assistance and co-operation I trust that we shall do our share, in extending the line of scientific truth toward that Mecca of our hopes and aspirations—a larger, more ample, and extended conception of the science of medicine. And as a legitimate sequence of my interest in this direction, I will ask your attention for a short time to certain salient features of investigation, the observance of which is essential to the end that we move in a linear direction in developing the science of medicine, rather than in a circle, tracing out the footprints of our wandering predecessors.

The history of metaphysical research, as conducted up to a short time since, demonstrates that no progress can be made where no certainty is possible.

It required countless ages of fruitless effort, on the part of the votaries of metaphysics, to demonstrate the truth, that the limitations of the human mind were such, that our faculties are only suited to the apprehension of phenomena. That we must move step by step, from one phenomenon or set of phenomena, to a succeeding phenomenon or truth. The metaphysician and the scientist have both had in view the same purpose,

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namely, the explanation of all phenomena. You are all familiar with the lofty claims of the elder sages, how they sought through metaphysical evolution, to fathom the secrets of life, destiny, and the universe; and you know how, that when they had reached certain dizzy heights, they lost their reckoning, and their supposed progress proved a delusion. The metaphysician required no guarantee as to the correctness of the premises, the solidity of the foundation for the superstructure, or at least none other than was given in the logical explanation of the problem. The assurance was purely logical, subjective. The proof was that furnished by the investigator's own consciousness, unsustained by any material evidence, and as Bacon very truly says: "All merely logical explanations are valueless, the subtlety of nature greatly surpassing that of argument." I feel that to the giant intellect of Bacon, in giving to the world the proper method of scientific inquiry as set forth in 1605, in the "Advancement of Learning," and subsequently in his "Novum Organum," we are chiefly indebted for the comparatively rapid progress that has been made since that period. In lieu of the scholastic logic of Aristotle, involving mere verbal dialectics, he proposed to substitute the principle of investigating nature, replacing sterile speculations with rigid observation, experiment and induction; substituting for hypotheses facts gathered from every possible source; and reasoning from effects to causes, rather than vice versa. He gave to us a method, the observance of which permitted discoveries and advances, and enabled us more effectually to unravel the secrets of nature. Various efforts at classification of knowledge looking to the genesis of science, have been made by such writers as Hegel, (who holds the happy conceit that "to philosophize on nature, is to re think the great thoughts of creation") by M. Compte, Jacob Boehm, Schelling and others, thinking very properly, that a proper interpretation of the genesis of science, would furnish an efficient means to progress. But in a masterly manner, Herbert Spencer has shown that their efforts at generalization, are purely artificial, and quite at variance with the true methods of scientific growth,—an attempt at serial arrangement of the sciences, incompatible with facts.

A settled feature of science at the present time is the fact that it proceeds from established phenomena, new facts are reached through those already known, it is founded upon verified facts, those that have withstood acknowledged tests. The failure in large measure to observe the scientific method, the failure to exact verification of one step as a condition of progress to a subsequent step, has involved us in countless errors, and stayed the progress of medical science more than all other influances combined. The number of baseless and visionary edifices that medical men have constructed and stored with human lives, is appalling to consider. Our great fault has been, (and even to-day, consists in) theorizing upon imperfect inductions, and very often upon a total misapprehension of particular facts. The fact must be impressed that we cannot anticipate nature, we must proceed from the known to the unknown. It is well that we should have clear conceptions of the nature of scientific knowledge, and not suffer ourselves to be subjects of the common fallacy, that scientific knowledge represents something essentially different from ordinary knowledge. Such a distinction is an assumed one, and without foundation in fact; the same faculties are employed in both cases, and in both instances, the mode of action is essentially the same. Science may be said to be an extension or prolongation of what is known as ordinary knowledge—it is further removed from the seat of perception, by virtue of the reasoning faculty, the degree of its remoteness from the seat of perception constituting its essential and distinguishing feature.

A factor favoring this extension of knowledge—this projection of the reasoning faculty, so to speak—and at the same time giving character and proportions to our conclusions, is that of a quantitative entity, or more properly, agency. All knowledge that is quantitative, the phenomena of which are suscepti-

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ble of accurate measurement, must be classed as perfected scientific knowledge, in contradistinction to knowledge that possesses only qualitative features, just as the intervention of any qualifying process, renders impossible accurate prediction, so is all qualitative knowledge uncertain in the provision that it permits. Hence recognizing the importance of the measurable or quantitative feature, the degree of worth, it gives to knowledge, in allowing prevision, by means of which, all advances aie made, it should be our constant and especial aim to introduce a quantitative agency. Let us apply our instruments of measurement, wherever possible, and let us seek to originate such instruments of measurement as we may need to accomplish the quantitative nature of all knowledge. It seems to me, that much of our physiological knowledge must for all time remain qualitative or only comparatively measureble. But as in the past advances made in collateral sciences have rendered possible that which for the time being seemed utterly impossible in medicine, we are taught that we should be cautious in placing a limit to knowledge in any direction. Just as the ferryman recognizes in his rope, a guide from one shore of a stream to the other, so let us in traversing the scientific deep, hold to the quantitative agency as our guide, knowing that it surely subtends the stream. As Spencer says, "every division of knowledge derives its special scientific character from the reduction of its sensible phenomena to relations of magnitude. Space is measurable hence geometry. Force and space are measurable hence statics. Time, force and space are measurable: hence dynamics. The invention of the barometer enabled men to extend the principle of mechanics to the atmosphere, and aerostatics existed. When a thermometer was devised, there arose a science of heat, which was before impossible. Such of our sensations as we have not yet found modes of measuring do not originate sciencies; we have no science of smell, nor have we one of taste." It is by virture of the quantitative feature of investigation, that we discover the laws of the greater proportion of phenomena, and we extend the range of our quantitative forecasts, as we detect the laws of the result we predict." And thus we are led to another feature, the recognition of which, as a condition of scientific progress, is quite as important as that of the quantitative feature indicated. I have reference to law, or uniformity of the classification of phenomena. No fact is more deeply rooted in the conviction of scientists at the present time, than that of the possibility of classifying phenomena in conformity to some invariable dependency of relation or connection, and this belief in the universality of law is strengthened by the constant observation of conformity, as the result of observation, experiment, and comparison, looking to this end. Those conversant with the vast accumulations of uniformities, established by astronomers, chemists, physicists, and men of science generally, become not only convinced, as to the truth of their observations, but become in consequence of such observations, committed to the belief, that there is no such thing as lawless phenomena. The law has been proven to exist, in such an overwhelmingly large number of instances, that we are driven to the conclusion, that even in the case of those phenomena, most involved and obscure, the same constancy of order in their display must exist, the difficulty of indicating which is to be found in our imperfect means of determining their proper order or law. This tendency to generalization permitted by the appreciation of uniformity of relations is a distinguishing characteristic of the present age. In no department of science is the apprehension of these fundamental conditions of scientific progress more essential than in that of medicine—the ocean of science to which all the streams and rivulets of science converge.

In a discourse of this kind, so short in its relation to the magnitude of the subject treated, it is impossible to do more than barely allude to these general indications of requirement to scientific progress. The illustration of their application to particulars, by the employment of examples, would so extend

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the limits of this paper, that I have unwillingly been forced to abstain from such a course. We are usually so much absorbed and beclouded, by the confusing intricacy of particulars in our investigations, that we fail to place ourselves upon such vantage ground in viewing the field of scientific progress as will enable us to perceive the salient features of the route. And this is my excuse for obtruding upon your attention these fundamental features of scientific progress, feeling assured that with such guides in our researches, as are furnished by the clear recognition of the fact, that experience is the sole origin of all knowledge; and a due appreciation of the importance of the quantitative feature, as well as that of uniformity of law, that the "tortuous deviations of the wandering reason, will at length strike out the straight road of truth." In our work of the coming year, let us recognize, and utilize, those means of ascertained power and efficiency, in accomplishing scientific advancement: and not fritter away our time in aimless efforts, trusting to fortuitous results. It shall be my especial desire to so direct, and stimulate your energies, that actual additions to the sum of medical knowledge may follow. We represent one of the most respectable medical organizations in the country, viewed in whatever light it may be. We represent the largest and most influential medical organization, west of the Mississippi River, and I am satisfied that if the talents of this society are properly utilized, developed and manifested, we shall have just cause to feel proud that we are members of the St. Louis Medical Society.

ADDRESS OF THE RETIRING PRESIDENT.

BY S. POLLAK, M. D.

Delivered before the St. Louis Medical Society, Jan. 14, '88.

On this, the last evening of my incumbency of the office, into which I have been inducted by your unsolicited suffrage, a year ago, I feel like thanking you again for that distinguished honor.

I entered upon the duties of the chair with many misgivings, for I was distrustful of my ability to do justice to it, and but for your generous forbearance and liberal aid, I could not have arrived at this point; and only by a avoidance of any subject leading to discussion on medical ethics, I have succeeded in reaching the end of my term in peace.

The society has passed through the year 1887 without an event to mar its history, and with much to make the remembrance of it pleasurableand profitable. The meetings were never better attended: the papers read were numerous, well prepared and ably discussed; the supply of anatomical and biological preparations, and of pathological specimens was abundant, and demonstrative that there are earnest and cultured workers among us. This Society has kept abreast with the rapid progress in every department of our profession.

The character and appearance of the society has undergone and is constantly undergoing a radical change. The older members are gradually joining the great silent majority so that soon none will be left, who were at the birth, or even at the juvenility of the society. Their immediate successors constitute the bulk of it now, who will in their turn be replaced by the younger generation. These constant and invisible changes denote that the true elements of a good society will never be wanting here.

Each successive year increases the numerical size, and makes a distinct improvment over the preceding one. As a higher order of medical education is being demanded, a higher order of medical practitioners will follow, numerous evidences of which are apparent every day among our members. The character of the society of the future will be as distinct as the advanced medical schools of to day are different from and of a superior order to those of the last decade. Each generation contributes its quota to the advance of medical knowledge; hence every new member adds an intrinsic value to the work of a medical society.

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Mere statements of cases will no more suffice; both the observer and the observation must be demonstrably true. No respectable medical society can afford to take for granted that the history of any case of sickness is correct, unless verified by many of the appliances now at the command of every progressive physician.

This society, in common with all others, is drifting in a direction where mere dogmas are not tenable, though started by high authority, nothing short of demonstrative evidence will find lodgment in medical minds. Formerly a dictum of an aged and popular practitioner was law in this society, now venerability must give way to scientific investigation and ocular proof. The microscope, the test tube, the crucible, have upset many theories which have been accepted as truisms for many ages, but which will in their turn, perhaps, be also controverted. The many instruments of precision now in vogue, such as the stethoscope, ophthalmoscope, laryngoscope, rhinoscope and endoscope, the thermometer, the esthesiometer, the sphygmograph, phonograph, the test-tubes, and chemical reagents, etc., make an accurate diagnosis not only possible, but a failure in it less excusable.

It must, however, not be supposed, that the mere possession of these valuable appliances implies a knowledge in the use of them. As well might the mere owner of a piano be considered a musician. It requires diligent study of physical laws, long training, great skill and experience, to get the proper results through their judicious application, and even then only when in combination with a full accurate clinical history of any given case. Either alone will not answer the present demand.

There is no limit to scientific investigation and to consequent great achievements. There is also no lack of able and honest investigators. However, though much time and intelligent labor may be bestowed by competent persons on their researches, yet pecuniary means may be insufficient for that purpose with any single individual, hence the majority of properly organized bodies of earnest, patient and scientific laborers, who may conjointly accomplish more than many good workers separately.

Government aid is more likely to be given to associations than to individuals. Though Pasteur, Koch, Lister are the few who accomplished much singly in the domain of their investigations and experiments, yet, not until at last, their respective governments took them under their charge were they placed in positions of infinitely greater usefulness, and of universal recognition. Our own enlightened and liberal government does a great deal in that direction, in every department of science and not the least in that of medicine, instance the colossal and unrivalled Museum and Library of the office of the Surgeon-General of the army of the U. S. with its large corps of scientists; witness also, the unique and unsurpassable index catalogue of that library, which has no equal in design and completeness in any country, witness the works of Sternberg, of Billings, imperishable monuments of vast erudition and judicious practical application.

Great laboratories, museums, and libraries are the concomitants of the medical schools in the U. S., mostly founded and richly endowed by private citizens, in which the earnest diligent enquirer finds ample opportunities to follow up his researches, and the fruit of such collective and individual labor, is enjoyed by every medical man in the land.

There are some members in this society who are engaged in such work, as far as their private means allow them. This society as a body is yet too straightened in its pecuniary resources to do much in that direction at present, but it is hoped that the time is not remote when a museum, library and laboratory will be the appanage of this society.

There are many wealthy citizens in St. Louis who may, perhaps, be induced to become founders and endowers of such an institution, as has been done so many times, by our brethren east and west, such as in Boston, New York, Philadelphia, Baltimore, and San Francisco.

But we, the members of this society, must

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take the initiative, we must put our shoulders to the wheel, and lend a vigorous help, in order to attain the much desired object. The assessment of this society is the lowest of any in the land. Three dollars a year barely suffice for current expenses. No fund can be accumulated for emergencies, still less for a home of our own. I respectfully suggest that the assessment from this time be ten dollars a year.

With our present membership, 270, this will give us $2700 a year, of which at least, $2000 could be laid up annually for our prospective home. The members get more than their money's worth now, and will get infinitely more with every succeeding year. If we thus try to aid ourselves, extraneous aid will not fail us. It has been thus in every society, and it is the only natural and practical way. Let us enter upon the task at once.

I cannot close this already too lengthy address without making an earnest and emphatic appeal in behalf of women physicians for admission as members of this society. This is the only large city in the Union, where objections have been made to their membership. These objections are not tenable, they are repugnant to the spirit of an enlightened and liberal age, and in direct contradiction of the proverbial chivalry and courtesy of our profession. A women physician is more in her sphere at the bedside of an invalid mother or her child, than a man. They have proven themselves most worthy members of the most prominent medical societies in the land, able and modest in discussion, happy and instructive in their contributions with their pen, ingenious and practical in their suggestions.

They are much sought after in every enlightened community, whether they are members of a society or not.

Remember their inestimable value in all emergencies of either peace or war.

Let us glory in woman membership of this society. We honor ourselves by honoring her, just as we rejoice and feel only happy in her companionship through life.

Thanking you again for the courtesy and consideration which you have so uniformly extended to me, I now surrender to my worthy successor the mace of office and bespeak for him your generous and cordial support.

WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

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J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, JANUARY 21, 1888.

A SANITARY POINT.

We grant the proposition that the question of sanitation is becoming a bore. The investigations of Koch, Pasteur and other bacteriologists, coupled with the imitative theorists of the medical and lay public are tending in the direction of making one's existence a burden. The timid may well ask themselves, "is life worth living?" if they are ever and always menaced by the merry microbe and the beastly bacillus, in addition to the more tangible dangers around and about them. In our homes we are not secure against the sneaking sewer gas, and upon the outside we are assured by the sanitary crank that malicious malaria follows us in our wanderings. Go when we will, come when we may, wherever we abide, there also abides the miasm; like the poor, it is always with us. Even the festive and traditional picnic party has to endure the colics and cramps occasioned by Vaughan's tyrotoxicon in its milk and water ice cream, the tormenting trichina in its ham sandwiches; all these in addition to the old time sorrows, occasioned by fractures and fleas.

We have made no reference to the dangers lurking in the canned corn beef, or the potted fowl, classed under the head of ptomaines, and in fact to the thousand and one poisons in the air, food and water of our environment, and we do not propose to, for the reason that nothing can come of it, except the making of some one uncomfortable *in his mind.*

One of our contributors last week drew attention to the absurd suggestion made by some germi-maniac that our telephones be disinfected before using!

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So far as the telephone mouth piece is concerned, let it alone, consign the germs lurking therein to the portion of hades which our gallantry prevents us from apportioning to the irritating and annoying hysterical female at the central end of the line who so frequently turns her deaf ear to our frantic hello.

In all seriousness, however, we feel that there are disease dangers in all public conveyances which should receive the attention of the health authorities in all cities. Public cabs, street cars and sleeping cars on railway trains are unquestionably the carriers of much contagion.

The upholstering is of a character to retain infectious matter for an indefinite time.

How many cases of scarlet fever, diphtheria, small-pox, etc., can trace their origin to these causes will never be known.

During the past year I have seen three cases of scabies of the most pronounced character on the person of commercial travellers, directly traced to the sleeping car, with its fancy colored blankets, which require no washing during their life time.

A law should at once be established requiring sleeping-cars to use only white blankets that will be honest and frank enough to indicate the presence of dirt within their meshes, and demanding the thorough disinfection of all cabs, street cars and railway coaches at least once or twice a week.

This is a suggestion which we throw out for what it is worth, and for which we make no charge, and we trust some one, ambitious for credit as a worker for the public good, will act upon it. I. N. Love.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Dec. 17, 1887. The President, S. Pollak, M. D., in the chair. F. D. Mooney, M. D., Secretary.

[CONCLUDED.]

Dr. Dalton.—I forgot to state that the odor from the placenta was extremely offensive. This case is a lesson to me, and must be to all of us. I supposed that I had gotten all of the placenta out and left a clean surface.

Dr. W. Johnston.—I would like to ask Dr. Lutz how often he would wash out the uterus.

Dr. Lutz.—As often as the symptoms indicated it, as long as the temperature arose and there was putrefaction in the uterine cavity.

Dr. Johnston.—These microbes can enter not only by the probe but by the atmosphere, and they live on the placenta, which is not organized tissue, giving rise to sulphuretted hydrogen which causes the offensive smell. I do not object to the removing of the placenta, but if it is a fact that these organisms are capable of entering the tissues, are taken into the circulation and destroy the blood corpuscles, I don't understand how by mere washing out of the uterus you can limit the rise of temperature. It was reported by Dr. Dalton that it was down the next morning: sleep will produce that; it is usual in such cases. It is uncalled for and unnecessary when the placenta is removed because you cannot get to the cause. You have pyemia and septicemia here.

Dr. Bond.—One important omission in this case is the absence of the previous history of the patient. The question involved is this: was the trouble the result of the miscarriage entirely, or did the miscarriage act merely as an exciting cause of the trouble that existed already? In other words, did there exist a previous salpingitis? If she had an old salpingitis the probability is that there was a leakage about every menstrual period, and there would be a certain amount of peritonitis as a result. The general symptoms and the history of the case would indicate that. Tait's operation would have been necessary to prevent death in just such a case as this. I am not disposed to accept Dr. Lutz' theory that the pus went through the tube from injection through the uterine cavity.

Dr. Lutz.—I did not say that. It reached the cul-de-sac from the uterine cavity, but not as a result of the injection. She was sick for a week before entering the hospital.

Dr. Bond.—I have no doubt that the leakage from the tube constituted the defect and led to the formation of pus in the cul-de sac, but the question is whether it came from the uterine cavity as the result of the abortion, or had it existed previously and merely added to the disturbance present. I feel that in the West Tait's operation is not performed as often as it should be. A great many lives are lost as a consequence. During this last week I received a letter from Dr. W. Gill Wylie. He says: "I have done 75 laparotomies so far

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this year, and 61 Tait's consecutively without a single death."

Now, if that man in New York can remove ovaries and tubes 61 times without a single death, why, we can do the same thing out here. And yet it is not done as frequently in the West as in the East. The position of the uterus has something to do with the occurrence of salpingitis, even in cases of abortion. We may have a case of flexion of the uterus in which the cavity of the body will be below the point of the interior os, and in that case the fluid that forms in the body of the uterus will gravitate toward the Fallopian tubes, and will have a tendency to go into the peritoneal cavity. That is more frequent than is commonly supposed. It seems to me that had Dr. Hulbert introduced his finger into the rectum, he would have discovered the presence of this pus.

Dr. H. H. Mudd.—I did not hear the history of the case fully, and cannot speak for that, but it seems to me that the specimen answers some of the questions put by the speakers since the examination. Dr. Bond says that the history of the case does not tell whether it was chronic salpingitis or an acute process. The specimen indicates that it was chronic salpingitis, which was the predisposing cause of the purulent collection in the peritoneum. The Fallopian tube on the opposite side is of normal caliber; the other gives evidence of more gradual inflammatory process than you would get from a simple acute inflammation. That tube has been dilated a longer time than a week or ten days. That pus was in Douglas' cul de sac; it was surrounded by the mesentery of the the sigmoid flexure. That adhesion limited the peritonitis, which was not a general one. Another point suggested by Dr. Dalton is an important one; he speaks as if the leaving of a small portion of the placenta was an unfortunate occurrence. I doubt whether there is such a lesson to be learned from the specimen. I think that the operation was complete, and that the damage was inflicted before the scraping, and that the latter was sufficient. Another point, I think, is hardly well taken. If the fundus of the uterus had been below the internal os, it would have percolated through and would have hastened the result; but ordinarily, where you have normal openings, I doubt whether gravity would have any influence in carrying fluid into the fallopian tubes, because in cases of congestion or inflammation, that tube is closed, and it is hard to force fluid through it. And we would have the uterus involved a long time before we would have that opening giving way to the simple pressure of the superincumbent fluid.

Dr. Johnston.—Have you ever had a case of chronic salpingitis and pregnancy to take place?

Dr. Mudd.—I have not had such a case, but I don't see that that would be impossible.

Dr. Lutz.—In connection with the history of the case—we know that one of the most frequent causes of salpingitis is gonorrhea. This patient being a public woman we might suppose that she had had gonorrhea; however, in this case, the history is that she came to town only a short time before coming to the hospital. But the salpingitis being limited to one side speaks against the gonorrheal origin of the salpingitis, in which case both tubes ought to have shown such changes. As to the causative factors, I believe that the woman was sick long enough to have brought about a simple catarrhal inflammation, to say nothing of infective inflammation resulting from decomposition of the placenta; the distention of that tube could have taken place. If you feel the walls of the tube you will find that they are not thickened. I think that as a result of the thickening of the endometrium this salpingitis took place, and the abscess resulted from the accumulation of the secretions of the tubes. I believe that the uterus was scraped as thoroughly as is ever done. I don't believe that you succeed in getting away every portion of the placenta in such cases.

Dr. C. H. Hughes.—I want to ask the gentlemen whether they have ever known a gonorrheal woman conceiving and carrying a child to full term. I have never known of such cases, and there is gynecological authority for each side of the question.

Dr. Bond.—From personal experience I can answer the question in part. I have seen a woman bear a child who had contracted gonorrhea one month after conception. She went to full term.

Dr. Johnston.—How do you know it was gonorrhea?

Dr. Bond.—Because I treated her husband for gonorrhea at the same time.

Dr. Hulbert.—I don't see why it is impossible for a woman to conceive who has gonorrhea. It does not necessarily mean ovaritis, salpingitis, endometritis, etc. There may be cervicitis. I don't think that the histories of cases point to that kind of result. So far as experience is concerned, I could not say positively whether patients that I thought had gonorrhea really had it or not, on account of the theory of the gonococcus.

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Stated Meeting. Dec. 24, 1887, the President, S. Pollak, M. D. in the chair. F. S. Mooney, M. D. Sec'y.

Dr. F. J. Lutz.—Before explaining this specimen, I would like for Dr. Dalton to give the clinical history of the case which was in the hospital.

Dr. H. C. Dalton.—The patient came into the hospital a few days ago with a strangulated hernia on the right side. We gave him and he received it readily. His pulse at the time was rapid, and he was in a collapsed condition. There was acute peritonitis and swelled abdomen. He was relieved of the hernia but did not recover.

Dr. Lutz.—The case is interesting. It is one of those cases in which after the reduction of the strangulated hernia, the obstruction is not relieved. The patient had been wrestling, and received a kick on the abdomen. There was general peritonitis due to extravasation of the intestinal contents into the periatontal cavity; as a result the coils of intestine were agglutinated. On the right side, corresponding to the inginal region, the intestines were firmly adherent to the anterior abdominal wall, and 1 in. to the right of median line was this portion of the gut, which from its appearance I take to have been the intestine which was in the sac. It is doubled on itself and firmly adherent by inflammatory adhesions, forming a cone, at the apex of which there is a perforation of the canal through which the contents escaped into the peritoneum. Here is also the sac, which at its opening is much narrower than at any other portion, and which has its peritoneum immensely thickened. The entire intestinal tract was inflamed, and the cavity contained two pints of fecal matter. The man had stercoraceous vomiting, and I found liquid feces in the stomach. Perhaps, you will remember that on several occasions I referred to a similar case in which the bowel was agglutinated after this fashion in which I performed herniotomy in which the gut was still agglutinated and the obstruction existing.

Dr. D. V. Dean.—Some months ago I made the statement that it would be a subject for a good deal of discussion, namely the need of a more radical work than the simple reduction of a hernia. A surgeon read then a paper, showing that the perforation occurs at the point of constriction. In this case, it seems to be a long way off from the constriction and the latter was probably not very great, or there would have been more stercoraceous vomiting before the reduction.

Dr. Edward Borck.—I have here the patient who lacerated his arm on July 24, and from whom I removed the whole ulna.

It is not always a question only of saving a limb, but what kind of a limb can we save? Is it going to be a useful one or not? And what is the surgeon's duty when the patient refuses amputation?

After much suppuration nature pushed out the ulna, and I removed it. The limb now is better than an artificial one, he can move the fingers, carry a lantern, or sweep with a broom.

Dr. Dalton.—One of the specimens which I present is that of a horse-shoe kidney, with a supernumerary spleen and cirrhosis of the liver. Dr. Perkins, one of my assistants, prepared the specimen very nicely. The left common iliac artery is very much hypertrophied, on account of the right leg being atrophied as it was flexed up so as to be useless. The central sacral artery is absent, but it goes to form one of the accessory arteries of the kidney, branching off on the left and right sides.

Another specimen is that of a case of pyonephritis. The next case is one of cancer of the lungs, liver and brain. The lung is entirely infiltrated with the cancerous nodules, and the same way with the white substance of the brain, and in the choriod plexus there is quite a good sized tumor. In the pyo-nephritis case there was a very old urethral stricure, the difficulty of urinating has been growinfiworse. The bladder is greatly hypretrophied; there is a gangrenous condition of the penis, and great dilatation of the ureters and pelves of the kidneys. Dr. Bremer saw the cancer case and I would like to have him explain it to the society.

Dr. Bremer.—I don't remember exactly the clinical history, which was indefinite on account of the diagnosis being obscure. He presented several brain symptoms before entering the hospital, one being that while formerly he could stand a great amount of alcohol, he would afterwards become pathologically drunk on small doses when the disease made progress. He was bordering on the comatose state when he entered the hospital.

We found as a prominent pathological lesion, cancerous infiltration of both lungs and the liver, and the tasernary faces was in a cancerous tumor of the pancreas. The question suggests itself, how did the cancer spread to the brain? As a rule, we say that sarcomata spreads through the blood vessels, while the carcinomata spread through the lymphatics. A sarcoma could spread through the liver and then to the lungs; but we could not accept such a theory in regard to the cancer

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spreading through the lungs to the brain. There were broken down cancerous masses carried to the left heart and thence into the brain, producing cancerous emboli which developed into cancer. There were a great many of the cancers about the internal capsules, which suggest to my mind the condition which is gradually met with in multiple sclerosis of the brain. I then inquired if he did not tremble, and was informed that he did. From this specimen I made some microscropic sections and hunted for the supposed bacillus of carcinoma, I have done this time and again, and I must say that I have never found any thing like a microbe. The sensational news in the papers that such a cause of carcinoma has been found must be received with reserve.

DR. DEAN.—Did the thoracic duct or the clavicle show any signs of cancer?

DR. DALTON.—No.

DR. DEAN.—In the case of the atrophied limb, the question is whether the atrophy of the vessel was a cause or result of the atrophy of the limb.

The annual meeting of the society was held Saturday evening, January 7th, 1888, with nearly one hundred of the members present, the largest attendance on record.

The first business in order was the reports of officers and standing committees.

The Secretary, Dr. F. D. Mooney, made a very flattering showing of the work of the society for the year just closed.

The Treasurer, Dr. Garland Hurt, presented a good balance sheet in favor of the society, and notwithstanding the fact that he has "Benedict-ed" within the past few months, he continues to faithfully serve the society, as the "watch-dog" of its treasury. The conscientious faithfulness to each and every duty to which he has "been addicted" all these years past makes him the right man in the right place, for the financial good of the association. Dr. L. Bremer, chairman of Library Committee, and Dr. Fry, of Publication Committee presented interesting reports.

Dr. I. N. Love, chairman of the election committee reported that the names of thirty-one candidates had been acted upon by his committee during the year, of this number twenty-nine had been elected to associate membership. This is the largest number of accessions to the membership during any year of the organization.

The election of officers for the ensuing year then followed, resulting in the choice of Dr. Young H. Bond for president by a large majority on the first ballot.

Dr. Coles was elected vice president; Dr. J. B. Prichard, recording secretary; and Dr. A. H. Meisenbach, cor. secy., and Dr. Garland Hurt, treasurer.

Later Dr. Bond, the president elect, entertained the Round Table Club at Faust's, and the health of the newly elected officers and the continued prosperity of the St. Louis Medical Society was drunk, all standing.

SELECTIONS.

TREATMENT OF THE FINAL STAGES OF PHTHISIS.

Dr. J. H. Musser, in *Med. News.*—For the relief of erythema from pressure and moisture, remove the cause if possible; apply astringent lotions and drying powders. The extract of hamamelis diluted, or the aqueous extract of the shops; borax and alcohol; the latter alone; sulphate of zinc, twenty grains to a pint of water; alum and water; carbolic acid (ten drops) in water (Oj); or alum and alcohol, carefully applied, is grateful and remedial. Starch, rye flour, fuller's earth, oxide of zinc, subnitrate of bismuth, iodoform, and starch, are drying powders, named in the order of cheapness, that are efficient. For painful erythemata, iodoform, oxide of zinc, and subnitrate of bismuth with starch in combination, answer well.

℞	Iodoform, - -	1 part.
	Zinc, - - -	2 parts.
	Bismuth, - -	2 parts.
	Starch, - -	4 parts.

A saturated solution of iodoform in ether, applied every day, or every other day, seems to relieve pain and remove congestion. A mixture of iodoform and surgical collodion relieves pain quickly. One must not forget the conventional soap-plaster, while glycerine applied frequently, is also of service. Ointments of iodoform, or of zinc, with the extract of opium or belladonna, are often necessary. For bed sores, remove pressure, and apply, by dusting, iodoform, Peruvian bark, oxide of zinc, or subiodide of bismuth. Oakum saturated with balsam of Peru, is often excel-

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lent. Surgical principles will guide in the treatment of exceptional ulcers.

Edema of the legs is most frequently distressing; bandages and elevation of the limbs are required. The swollen legs are the seat of a very painful erythema; here again, sedatives,as laudanum and lead water, or hamamelis, are required. One of the easiest prepared and most soothing applications for any edematous erythema, is the so called starch poultice—ordinary starch mixed with water to the consistency of thick cream, spread on linen and applied.

Apart from the usual pains in the thorax, the patient suffers from general aching and soreness, and from local areas of pain. Rubbing with stimulating applications, alcohol, soap liniment, arnica, chloroform liniment, or with dry heat or applying hot flannels, are necessary. Local pains may be relieved if in the course of the nerves, or in the extremities or where undue pressure has been exerted, by cannabis indica; laudanum may also be used, but is inferior in value; lanoline is a good vehicle for any substance. Plasters are not generally pleasant; belladonna, opium and soap may be selected.

Chest pains are usually severe. Use dry heat, by means of hot cloths, hot plates, or hot-water bags, or sinapisms, or rubefacient liniments. Pain in the epigastrium and about the heart often occurs in the last week, and is most horrible; dry heat is most seviceable of external applications. The pain appears to be due to tension on the adherent pleura, by collapsing or contracting cavities. The secret of success in the treatment of the general and local pains, is the ability to ring the changes on various articles; the wrought-up nervous system conjures up or intensifies pains, which require an agile mind to relieve.

For the dry, parched, or fevered lips, use cold cream; camphorated or benzoated oxide of zinc, camphor water and glycerine, with or without borax, or boracic acid, or even glycerine alone, may be used. An erythematous stomatitis is often present; demulcents are required. Decoctions of marshmallow, or gum arabic, are soothing; morphia or the syrup of poppies in a demulcent,relieves the burning distress. The slippery elm bark of boyhood days, chewed, furnishes a soothing coating to the mucous membrane. The burning that attends erythemata may be relieved by allowing bits of borax to dissolve in the mouth, or by applying boracic acid locally. Ten grains of the latter to a half ounce each of water and camphor water are sufficient. Alkaline waters iced are grateful.

For ulcerative stomatitis and thrush, phenol sodique, Dobell's solution, and listerine,either of them well diluted, are detergent, and often soothing. If the ulcers are few, iodoform in ether touched on them will quickly heal. Boracic acid and camphor water in distilled water is a cooling mouth wash; myrrh is commonly used by the laity. Alcohol in water can be used; a solution of the bichloride of mercury (1 1000) in iced water seems to be cleansing. Flatulency is a most distressing cause of suffering. External applications of heat, dry or moist, are required. The aromatic spirits of ammonia,spirits of chloroform,Hoffman's anodyne, brandy and lime-water, creasote and charcoal in pill, with or without pepsin, or a mixture of carbolic acid, tincture of cardamon, and bicarbonate of soda, with mint water, most frequently relieve it. The recent preparations of pepsin, and pancreatin, are of inestimable value. A bitter before eating, with or without an alkali, prevents a succeeding flatulency; either nux vomica, gentian, or quassia.

Vomiting arises from laryngeal irritation, from cough, from exhaustion, from local gastric irritation, by food undigested undergoing fermentation. Remove the laryngeal irritation by the local application of astringent and anodynes, by glycerite of tannin with or without morphia, or by astringent and anodyne lozenges. The vomiting of food by cough is prevented by administering morphia half an hour before meals, or by taking deodorized tincture of opium before the meal. The vomiting that occurs after rising is often prevented by taking some stimulant with nourishment, before assuming the erect posture; sherry and egg, or milk and brandy. The vomiting and retching that occur from excessive coughing is to be relieved by the anodyne that checks the cough; the more simple the anodyne the better; minute doses of morphia, if not contra-indicated, are the best. The vomiting of exhaustion is controlled by stomachics, as quassia,or gentian in infusion; by stimulants, as champagne, brandy, and aromatic spirits of ammonia. Vomiting due to local irritation and congestion, caused by undigested and fermented food, is relieved by antifermentatives—carbolic acid, creasote; bismuth, and charcoal; by artificial aids to digestion, by the use of peptonized or pancreatized foods, by alkalies, as iced lime-water, or Vichy water, which act as local sedatives; by carbonic acid water, the effects of which are sedative. The stimulating effect of a sinapism, or the sedative effect of a blister, must be invoked by their respective indications.It must not be forgotten that lying on the right side increases the tendency to vomit, ly-

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ing on the other side having an opposite effect.

Pain in the epigastrium, a most common symptom from flatulency, from an irritated congested stomach, from a diaphragmatic pleurisy, is to be met by treating the respective causes. A gastric sedative, as subnitrate of silver in pill before meals, with a minute dose of opium, prevents the pain that ensues after food.

Diarrhea, if colliquative, may be controlled by stimulants, as burnt brandy, ammonia, or camphor; if tubercular, by large doses of astringent. Bismuth, from thirty to sixty grains in each administration, has served the writer as well as any combination of drugs. Logwood is a most valuable astringent, the fluid extract being used most frequently.

Intestinal flatulency is often the cause of diarrhea, and can be prevented by salicylic acid, by antifermentatives, and by pancreatin. The diarrhea that follows immediately on taking food is treated by an opiate; preferably deodorized tincture of opium in small doses, five to ten drops, or the powder, one-twelfth of a grain, with silver or bismuth before meals. A septic diarrhea ensues also in this last stage, and is to be checked by salicylic acid, by naphthol, or other forms of the naphthaline series recently introduced into therapeutics. The diarrhea of amyloid diseases can only be controlled by opiates.

To relieve the cough of the last stage is most difficult. Dryness of the upper air-passages is most distressing, and local applications are generally painful. By the aid of a mirror, suitable remedies, always demulcent in character, can be applied to the congestive areas about the larynx and epiglottis. Glycerine applied with a brush relieves the dryness; Dobell's solution thus applied is of service. The applications must be made often to the dry areas. Listerine with glycerine is of much value; inhalations of terebinthinated vapors, or of simple aqueous vapors are most grateful. The simplest form of inhalation is the best. We frequently have generated the vapor in a sick cup, covering the top, and inhaling by the mouth piece. The ineffectual efforts to cough can be aided by hot water, by hot water and brandy, and by the aromatic spirits of ammonia well diluted. Hydrocyanic acid has never been of any service in my hands for cough, while opiates are to be used with caution. A moderate dose of morphia may produce serious and even fatal symptoms. Codeia has disappointed the writer. Hyoscyamus and belladonna frequently add to the distress by producing dryness of the fauces; to relieve the dyspnea, our utmost efforts are in demand. Ammonia, alcohol, Hoffmann's anodyne, and draughts of hot waters are required in turn; external heat contributes to the relief. One of my professional friends says he has seen the air-hunger relieved by quebracho. Inhalations of oxygen should be theoretically of much service; the writer has never used them. The patient must be supplied with fresh, cool air, a source of relief to the distress. Attacks of dyspnea, of course, are increased by flatulency, and this complication must be removed.

Hemorrhage in the last stage is usually profuse. A knowledge of the pathological anatomy of the lung at once shows the futility of astringents. Rest and opiates are essential, stimulants may be required; ice or cold cloths over the chest are imperatively demanded if it persists.

Laryngeal and faucial tuberculosis increases the distress of the patient. As long as feasible, cocaine to render the the taking of food possible must be applied to the ulcerated pharynx and larynx. Insufflations of morphia alone, or with iodoform and starch, must be practised, and over the larynx frequent fly blisters applied. One-eighth to one-quarter of a grain of morphia, with one grain of iodoform and three of starch, insufflated, or added to treacle and retained by the patient as long as possible in the larynx, gives much relief.

In the late stage of phthisis some means must be used, but not as imperatively as in the earliest stages, to combat fever. Quinine frequently aggravates nervousness, and is inadvisable. The salicylate of sodium, doses of five grains, guarded with a drachm of whisky, every three hours, is a reliable antipyretic. It is also of much service after the manner of administration by Jaccoud. The general restlessness and nervousness which ensue at this period of phthisis must be prevented or allayed by quiet in the surroundings, by free access of pure air, by the administration of light liquid food only, and by the use of stimulating anodynes, preferably Hoffman's anodyne; for a similar purpose, valerian and asafetida, by the mouth or rectum, or, if practicable, musk can be used; they are of much value. Gentle frictions allay restlessness, while ministrations with soft voice and gentle action allay an easily perturbed, nervous system. By means akin to these, we can truly administer to the sufferings of our patients. It is quite certain, however, that the firm voice, the truthful countenance, the inspiring touch, sustain and soothe in this trying passage through the valley of the shadow of death.—*Columbus Medical Journal.*

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IS TUBERCULOSIS INFECTIOUS.

By a number of carefully conducted experiments, M. Cadeac and M. Mullet have undertaken to determine if the air expired by patients suffering with pulmonary tuberculosis can produce the disease by inhalation or by inoculation. They publish an interesting account of their experiments in a recent number of the *Revue de Medicine*. The method which they adopted in the first series of experiments was as follows: A caoutchouc bag, having a capacity of from forty five to fifty quarts, provided with a stop-cock, was partially filled by being breathed into by a patient in an advanced stage of phthisis. It was then filled to its utmost capacity with pure air, and in that way a vitiated atmosphere was created like that which is usually to be found in a phthisical patient's room. Rabbits, the susceptibility of which to tuberculosis is well known, were made to breathe in the air contained in the bag for an hour or two hours every day, by means of a certain muzzle, fashioned after a mouth-piece of Paul Bert's anesthesia inhaler. This was repeated for several days, and the three rabbits upon which the experiments had been performed were killed after the lapse of from twenty to forty days, and their organs examined. The results were entirely negative; all the viscera were found perfectly healthy. In another series of experiments, rabbits affected with catarrhal bronchitis were treated in the same way, but in them also the results were negative.

The objection might be raised that in these experiments the degree of infection of the mixed air was variable and the exposure too limited in duration. To exclude this source of fallacy, a third series of experiments was undertaken. A small box was divided into two compartments in such a way that animals put into the two compartments had to breathe the same air, but could not come into bodily contact. Rabbits in which artificial tuberculosis had been produced were put into one of the compartments, and guinea-pigs affected with induced bronchitis were placed in the other. Thus, for periods of two or three months, the non-tuberculous guinea-pigs had to inspire the emanations from nineteen tuberculous rabbits; yet not one of the guinea-pigs showed any signs of tuberculosis, either during its life or after being killed. In a fourth series of experiments, the vapor contained in the expired air of phthisical patients was condensed, and the resulting liquid was injected under the skin in rabbits, with antiseptic precautions. Twelve rabbits were thus treated, and the results were negative in all, with a single exception: in the rabbit that proved the exception, two gray granulations, of the size of a pin's head, were found in the left lung. Thirteen guinea-pigs were treated in the same way, and in none of them did infection take place.

The authors pushed their experiments still further. There were two wards in the hospital, one of which was 120 feet long, 24 feet wide, and 21 feet high, containing about forty consumptive patients, and the other 105 feet long, 18 feet wide, and of the same height, as the first, having about twenty-nine patients. The mojority of the patients expectorated freely, and no precautions were taken with regard to the sputa. Several of the patients were in such an advanced stage of phthisis that they had to keep their beds constantly. Air collected from these wards, quite close to the beds occupied by patients, was subjected to condensation of its aqueous vapor, which was used in the same way as in one of the other series of experiments. Twelve guinea pigs were employed in these experiments, and the results were negative in all but two of them. In one of these two, a few small gray granulations, containing tubercle bacilli, were found in one of the lungs; in the other, there were numerous foci of tubercular granulations in both lungs and in some of the glands of the body.

Although these experiments do not entirely disprove the infectiousness of tuberculosis, it must be said that they afford strong presumptive evidence of the innocuousness of the air expired by consumptive patients. The two instances of positive results obtained in the last series of experiments emphasize the necessity of disinfecting the sputa of phthisical patients, whether in a large hospital ward or in small apartments occupied by the sick and the healthy.—*N. Y. Med. Jour.*

A STATE BOARD OF MEDICAL EXAMINERS.

It being admitted that the chief object of laws to regulate the education and practice of the medical profession is to protect the people by enforcing a fair standard of both general and professional education for all who are allowed to practice any department of the healing art, it must be admitted, also, that a competent and efficient State Board of Medical Examiners is a necessary part of all such laws. The education and conduct of the

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members of the clerical profession are regulated by the Conferences, Presbyteries, Synods, etc., of the several denominations, to some one of which every clergyman is supposed to be amenable; while that of the members of the legal profession is conveniently regulated by the Judges of the several courts. But in the medical profession there are no such complete and authoritative organizations as those alluded to in the clerical, or such reliable and impartial tribunals as the Judges of the several courts for the legal, and consequetly some different method must be devised for appointing and perpetuating the desired State Board of Medical Examiners in each State.

After reviewing the practical results of all the various attempts to establish boards of censors in connection with medical societies, and State Boards of Examiners by appointment of judges of courts, or by the Governors of States, either on the nomination of State Medical Societies or without such nominations, we are satisfied that no better method can be devised, than to make it the duty of the Governor of the State Board of Medical Examiners, the same to be approved by the Senate; provided that no person should be eligible for appointment on such Board who was not possessed of a good general and professional education and had been engaged in the reputable practice of his profession at least ten years. There should be no mention or allusion in the law or in any of its provisions to so-called schools or theories in medicine. The appointing power should be limited only to the selection of men of known scientific and professional attainments and good character, and the Board itself should have but one standard of requirements and examinations for all candidates who may come before it. When the Government, through the agency of its Examining Board, has secured to the people a medical profession all the members of which have given satisfactory evidence of having acquired a good general and scientific education, and a thorough knowledge of all the departments of medical science and practice, it has fulfilled its duty. Whether the men or women thus found qualified and registered as legal members of the medical profession shall, in their intercourse with their patients, prescribe a large dose or a small one, or shall select their drugs in accordance with one theory or another, must be left to the judgment and conscience of each individual.

It would be a good rule to make the State Board consist of nine members, each holding office three years, but eligible for reappointment. Whether the appointing power should be prohibited from appointing any person holding an official position in a medical college either as an officer or teacher, or whether he should be required to select one member of the Board from the faculty of every legally established medical college in the State, is a question concerning which there may be differences of opinion. Probably the first alternative would meet with the most general approval.—*Jour. Am. Med. Association.*

FREQUENCY OF TWIN AND TRIPLET BIRTHS.

Medical statistics have a certain value, either as pertaining to the beginning, the duration, or the close of life. It does not follow that, because a city or a country practitioner has met two or three cases of trichinosis, or of fracture of the os calcis, or any other rare disease or surgical lesion, upon a single street in the same week, the same even will occur to him on the following week. One or two deaths only from the first-mentioned cause have occurred in Massachusetts in the past twenty years.

The probable error in computation from small, is vastly greater than that from large numbers. The obstetrican occasionally writes to know the ratio of twin or triplet births in 1,000, 10,000, or more labors. Other things being equal, such as race, climate, character of population, etc., the variation between any two series of one thousand labors will usually be greater than the variations between two series of ten thousand labors.

We have in the Massachusetts Registration Reports an opportunity to study the ratio in

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one million births. In twenty-five years, ending with 1886, there were registered in Massachusetts 1,016,278 births. There were also registered in the same time 9,028 pairs of twins, and 109 cases of triplets. This gives a ratio of one case of twins in every 110 labors, and one case of triplets in 9,324 labors. So that the common statement that one case of twins occurs in 100 labors, and one of triplets in each 10,000 labors, is not far from correct.

In the period named, the greatest frequency of twins in any year was in 1865, when there was one case registered in 96 births, and the least frequency was in 1885, when there was one case of twins in 130 births. In 1881 there were registered nine cases of triplets, or one in 5,024 births, and in 1879 but one case in 40,205 births.

As an instance of marked departure from the above, and also an illustration of the error in dealing with small numbers, two cases of triplets occurred in the writer's practice in a series of less that 300 labors.—*Boston Medical and Surgical Journal.*

CURE OF EPITHELIOMA OF THE LARYNX.

Professor Schnitzler has recently published in the *Internationale Klinische Rundschau*, of November 20, 1887, a paper on the diagnosis and treatment of endolaryngeal new growths; in his paper he records the case of a woman in whom he had destroyed an epithelioma of the larynx by the galvano-caustic method twenty years ago, and who was still living. The diagnosis of epithelioma had at the time been fully confirmed microscopically by very competent and trustworthy pathologists. He was nevertheless afraid that, on hearing the case, some might be disposed to make the usual comment referred to in the following remark of Ducarcques: "Cancer is incurable because it is not cured ordinarily; it cannot be cured because it is incurable; and when it is cured, then it did not exist." The following are the details of the case: E. L., an actress of Prague, 20 years of age, was in January, 1887, admitted into the clinic of the late Professor Turck, of Vienna, for persistent hoarseness. Turck stated that vegetations of the vocal cords were the cause of the voice affection. Repeated operations performed by him with the knife (in February and June, 1867), were only temporarily successful. When the patient came, some months later, into the clinic of the late Professor Oppolzor, she was almost absolutely aphonic,and also complained of considerable difficulty of breathing. Schnitzler, who was then assistant to Oppolzer found that the local cords were much swollen, and detected the presence of red vegetations of a granular appearance at their inner side. The vegetations almost filled up the rima glottidis. In spite of the youth of the patient, Schnitzler diagnosed epithelioma, and immediately removed the vegetations, which already threatened to suffocate the patient. The first piece of a large size (of about the size of a cherry stone) which was removed by the galvano-caustic loop, was microscopically examined by Drs. Biesiadecki and Scheuthauer, then assistants of Professor Rokitansky. Both these experts pronounced the growth to be epithelioma. Schnitzler afterwards heard that Professor Turck had also at once made the diagnosis of epithelioma, and that his diagnosis had been confirmed by the microscopical examination of Professor Wedl. Schnitzler had repeatedly destroyed the disease by galvano-cautery,and was happy to be able to show the patient at the meeting of the Imperial Royal Society of Physicians of Vienna on October 16, 1868, as being cured, that is to say, so far as we were entitled to speak of the cure of epithelioma. The patient was still hoarse, but her voice could already be distinctly heard, and the dyspnea had completely disappeared. No trace of the growth could be discovered (Report to the Society of Physicians of October, 1868). The patient remained under the observation of Schniztler for some years longer, and he thought it possible that she might have lived for ten years after the operation. Before however, he published the case, he wished to obtain exact particulars as to the patint's fate.

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and, therefore, applied to the physician who had in the first instance sent the patient to him. To his surprise he learned that she was still alive, and that the physician had seen her only recently at Prague, twenty years after the laryngeal epithelioma had been destroyed. Schniztler went on to ask if it was possible that such excellent microscopists as Biesiadecki and Scheuthauer could have made a mistake. He could not believe this, as their diagnosis was quite positive. After all, why should not recovery take place after the galvano-caustic destruction of an epithelioma, as well as after its extirpation with the knife? The possibility of curing some kinds of carcinoma was, as is well known, admitted by Rokitansky.

SUDDEN EDEMA OF THE GLOTTIS AS A FIRST SYMPTOM OF CIRRHOTIC KIDNEY.

B. Fraenkel reported an interesting case of this kind before the Berlin Medical Society. The patient was suddenly seized with dyspnea, and when the author saw him he was sitting on a chair and complaining of the want of breath. A laryngoscopic examination showed swelling of the epiglottis and of the aryteno-epiglottidean folds. As the patient was stepping into the carriage to be taken to the clinic, where tracheotomy was to be performed, he droped dead. At the autopsy intense edema of the epiglottis and the aryteno epiglottidea folds was found. There was very marked contraction of the left kidney. The right kidney was enlarged and in a condition of parenchymatous swelling. The immediate cause of death was edema of the kidneys. There was absolutely no effusion in any other part of the body. The patient had never shown during life signs of any disease of the larynx. The whole duration of the disease was not more than an hour. The patient must certainly have suffered with albuminuria for some time, as the urine removed after death was rich in albumen. In the discussion that followed, A. Baginsky remarked that such a condition was observed also in the acute nephritis following scarlatina. De Bary, of Frankfort, had been the first to describe acute edema of the glottis as a first symptom in scarlatinal nephritis. Since then a few cases of the kind have been recorded.—*New York Med. Journal.*

ULCER AND CANCER OF THE STOMACH.

This disease has been made the subject of experimental and clinical research by Dr. F. Riegel, the results of which he lately published in the columns of the *Deutsche Medizin Wochensch.* He arrives at the conclusion that diminished alkalinity of the blood is not the sole cause of the disease, but that disturbance of circulation takes an active share in its causation. This, however, as is pointed out, does not explain the long persistence of the condition when once established. Experiments on animals showed that the process of healing was in them very rapid in every case, whilst in the human subject the disease remained persistent for years. From clinical observation alone (31 cases), he was disposed to attribute the origin of the disease to hyperacidity of the gastric juice, and in fact he met with gastric juice containing 3 to 4 per cent, and even up to 6 per cent of hydrochloric acid. The question whether the hyper-acidity is primary or secondary is discussed by him, and the conclusion reached that the hyperacidity produces a state of vulnerability in which erosions are likely to occur, and which, in process of time, or on receipt of injuries, lead to the formation of the specific *ulcus rotundum.* The hyper-acidity also explains the great tendency to return of the disease. As regards treatment, he recommends washing out of the bladder, on account of the tendency there is in the disease to development of gastroectasis. Alkaline mineral waters and alkalies are recommended in addition to dietetic treatment, to counteract the acid tendency. The same and the allied subject of *carcinoma ventriculi* have also been studied by Professor Korezynski and Dr. Jaworski. They agree in the main with the results ar-

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rived at by Riegel. Thus in old cases of ulcer, hyper-acidity has been always observed, but at the same time there was hyper-secretion. Ectasis was also frequently observed. They also look upon the hyper-acidity as the cause of the disease. In two cases of recovery from ulcer, the hyper-acidity also disappeared after healing of the ulcer. The researches of these two observers show that the absence of the hydrochloric acid reaction, although the rule in carcinoma of the stomach, is, by no means, a constant phenomenon. It is noteworthy that, in some cases in which the reaction was absolutely nil, digestive power was still present. Riegel accounts for the absence of the hydrochloric acid reaction in carcinoma, on the hypothesis that the gastric juice is destroyed by the cancer secretion. The authors do not accept this explanation, but rather attribute the fact to the copious catarrhal secretion of mucus that takes place in carcinoma. Some interesting observations were made on the behavior of blood under the influence of the gastric juice. These may bn epitomized as follows: *a.* Gastric juice of a dark color may be suspected of containing blood, but it does not necessarily do so. *b.* When the contents of the stomach are dark-brown, like coffee-grounds, or ink-like in color, smelling like peptonized blood, the probability is that the case is one of ulcer, but when of a dirty grey, or light chocolate color, and smelling of fatty acids and vinegar, the probability is in favor of carcinoma. *c.* A reddish or reddish-brown filtrate, or the presence of blood corpuscles is in favor of recent hemorrhage in the stomach. *d.* Bloody vomit containing much hydrochloric acid and possessing powerful digesting properties, is usually indicative of ulcer, whilst if the ejected material is free from hydrocholic acid, and does not digest, the case is probably one of carcinoma.—*Med. Press and Circular.*

THE VALUE OF ANTIPYERTICS.

According to Dr. Leroy J. Brooks (*Philadelphia Medical Times*), the typical treatment of fevers should be:

First thermometric stage; abort; modify: shorten duration by quinine, assisted by heat-dissipaters.

Second thermometric stage: keep temperature below 103° by salicylates, antipyrine, antifebrine, assisted by cold applications, lowered surrounding temperature, hydrogenized food.

Third thermometric stage: feed; stimulate; use nerve.sedatives and tonics.

Lastly. The antipyretic effect of quinine commences about the third or fourth hour; reaches its maximum in the sixth or eighth hour; continues its effect from twelve to seventy-two hours, and sometimes permanently. Salicylates commence the second or third hour, reaching the maximum in four to six; and continue their effect twelve to fifteen hours. Antipyrine, antifebrine and this class comence their effect in one half to one hour; reach the maximum in two to three hours; continue their effect three to six hours. Aconite, gelsemium, etc., commence their effect within the first hour, reaching the maximum in from two to five hours; the effect dissipates soon after ceasing administration of drug.—*The South-western Medical Gazette.*

MEDICAL APHORISMS

A correspondent of the *Canada Lancet*, signing himself "Artz,". says that he came across the following curious and shrewd aphorisms of Amedee Latour:

1. Life is short, patients fastidious, and the brethren deceptive. 2. Practice is a field of which tact is the manure. 3. Patients are comparable to flannel; neither can be quitted without danger. 4. The physician who absents himself runs the same risk as the lever who leves his mistressa he is pretty sure to find himself supplanted. 5. Would you rid yourself of a tiresom e patient, present your bill. 6. The patient who pays his attendant is but exacting; he who does not is a despot. 7. The physician who depends on the gratitude of his patient for his fee is like the traveler who

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waited on the bank of a river until it finished flowing so that he might cross to the other side. 8. Modesty, simplicity, truthfulness! cleansing virtues, everywhere but at the bedside; there simplicity is construed as hesitation modesty as want of confidence, truth as impoliteness. 9. To keep within the limits of a dignified assurance without falling into the ridiculous vauntings of the boaster, constitutes the supreme talent of the physician. 10. Remember always to appear to be doing something—above all, when you are doing nothing. 11. With equal and even inferior talent, the cleanly and genteelly dressed physician has a great advantage over the dirty or untidy one. —*The South-western Medical Gazette.*

HYDROCHLORATE OF APOMORPHINE IN DRY COUGH.

This drug has been extensively tried by Dr. Stocquart, of Brussels, as a remedy for certain kinds of cough, and he speaks highly of its value. The kind of cough in which it has proved most successful is a distressing and frequent hacking, unattended with expectoration, or with exceedingly difficult expectoration. The improvement of the patient's condition is usually effected in a few days. The drug is, as a rule, well borne, although a few individuals manifest a special susceptibility to its action, and rarely nausea, colic, and diarrhea result from its employment. The dose is a minute one, only about one-twentieth grain of this alkaloid being given in water in the twenty-four hours. As the solution rapidly alters by keeping, it is advised to prevent its decomposition by the addition of a few drops of hydrochloric acid, which does not interfere with the therapeutic effects. —*Medical Record.*

THE NATURE OF THE HYMEN.

Mr. Bland Sutton, at a recent meeting of the British Gynecological Society, pointed out that the vagina was formed in the same manner as the rectum, by an invagination of the epiblastic layer, termed the proctodeum, coming into contact and fusing with the posterior segment of the primitive gut. The distinction between the two parts remained throughout life; for in the rectum a ridge of adenoid tissue marked the situation where the squamous epithelium of the anus joins the columnar cells of the rectum. In the vagina the corresponding spot was indicated by the hymen or its remains.

The mode by which the proctodeum and the gut became fused was as follows:

When two cul-de-sacs came into contact and exercised pressure upon each other, the edges gradually cohered and joined organically. At this stage the lumen was yet obstructed by a thin septum. This gradually become thinner from pressure, and ultimately perforation took place. The hole gradually increased and the septum slowly disappeared until a complete channel was the result.

In the case of the anus, it was clear that, if the invagination failed to reach the gut, an imperforate rectum would be the result. From a study of these conditions he was convinced that the hymen was merely a thin septum resulting from the imperfect coalescence of the proctodeum with the urogenital section of the cloaca. Should the septum be complete, it was termed an imperforate hymen. Occasionally the perforation was multiple, eccentric, or cribriform:

Similar evidence as to the nature of the hymen was obtained from the opposite end of the alimentary canal. The mouth and pharynx, with the associated structures, were derived from an involution of the surface epiblast named the stomodeum. This met the blind anterior end of the foregut at a spot eventually corresponding to the cricoid cartilage. Should these parts fail to unite, an imperforate pharynx was the result; when the coalescence was imperfect, then a hymen-like diaphragm might be found. So far as the alimentary canal was concerned, diaphragmata of this nature occasionally existed between the pharynx and the esophagus, in the duodenum immediately above the entrance of the

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bile-duct and in the rectum at the point of union of anus and gut.

Thus the formation of a diaphragm, sometimes complete, but commonly perforated at the entrance of the vagina, was onlyin agreement with what occurred in other parts of the body when two cul-de-sacs coalesced to from a continuous passage. Lastly, abnormalities of the vaginal orifice were not infrequently asscociated with defects of the alimentary canal, as might be expected, taking into consideration its embryological relations with the cloaca.—*Medical and Surgical Report.*

Gravity as an Expectorant.—It is claimed that in cases of pneumonia where there is great embarrassment of breathing from accumulation of secretion in the bronchial tubes, great benefit may often be derived by inverting the patient and having him cough violently while in this position. It is easily accomplished by a strong assistant standing on the patient's bed, seizing the sick man's ankles, turning him with his face downward, and then lifting his feet four or five feet above the level of the mattress. If the patient, with his face over the edge of the bed and his legs thus held aloft, will cough vigorously two or three times, he will get rid of much expectoration that exhaustive efforts at coughing failed to dislodge when not thus aided by gravity. Life has been saved by repeated performances of this maneuvre in pneumonia accompanied with great cyanosis due to inundation of the bronchial tubes with mucous secretion. It, of course, will have no effect on the exudate in the vesicles. Gravity is of value in a similar way in emptying the lungs of mucus during etherization.—*Polyclinic.*

Treatment of Thoracic Aneurism by the Introduction of Wire.—M. Charmeil, of Lyons, has collected the details of fifteen cases of aortic aneurism, in which "Moore's method," as he terms it, was employed, from the original case in the Middlesex Hospital to three previously unpublished cases in the practice of M. Lépine (*The Lancet*, December 3, 1887). Although not one of the fifteen cases has resulted in the cure of the aneurism, M. Charmeil concludes that the practice itself does not involve any direct danger to the patient, and that the results ascertained at the necropsies have been encouraging. Clinically, the treatment has nearly always been followed by local improvement, as well as by relief of subjective symptoms. He therefore thinks the method is justifiable and worthy of continued trial, and indicates as essential to its favorable practice a preliminary exploration of the aneurism by means of acupuncture needles, the use of the watch-spring of Bacelli introduced through a flattened cannula, and the most rigid adoption of antiseptic precautions. At the same time recourse should be had to Tufnell's dietetic treatment.—*Record.*

Intestinal Affections of Young Infants.—Dr. Th. Escherlich, of Munich, writing on gastro-intestinal affections in children, points out that when the small intestine is the seat of the disorder, as this is inaccessible to washing out, like the stomach and colon, the best way to act upon it is to regulate the food so that the contents of the small intestine shall not easily undergo fermentation. He mentions the researches of Hirschler, which show that in a mixture of albuminoids and carbo-hydrates, such as milk, the carbo-hydrates are the first to decompose. When, therefore, acid fermentation is going on, the carbo-hydrates should be removed from the diet. Similarly, when albuminoid fermentation processes are going on, as shown by the occurrence of offensive stools, the addition of small quantities of dextrin or other carbo-hydrates to the diet may be expected to stop the albuminoid fermentation. — *London Lancet.*

An Unfortunate Conjunction.—Some lugubrious religious crank has been plastering the rocks along the Hudson river with the words in white paint "Prepare to meet thy God." And with an unconscious humor he has occasionally placed this statement after the name of some patent medicine, so that the traveller reads it as follows: "Use Killem's Disease Annihilator—Prepare to meet thy God."

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ORIGINAL ARTICLES.

POLIOMYELITIS ANTERIOR ACUTA INFANTIUM.

BY FRANK. R. FRY, A. M. M. D.

Clinical Lecturer on Diseases of the Nervous System.

Notes from Clinical Lectures at The St. Louis Medical College, October and November, 1887.

Case I.—This case will be of interest to you because it is typical. It is of special interest to me because I have been able uninterruptedly to observe the course of it so far. The patient is just five years old. When he was thirteen months old, I was called to find him with a slight fever, not high enough to occasion anxiety. He had evidences of a slight cold, was fretful, and preferred to lie most of the time in his crib. On the third or fourth day of his illness, the fever having about subsided, the mother called my attention to the fact that the right lower extremity was useless and felt perfectly limp when she raised him from the crib. In his general health the patient was in the course of a week as well as ever. In the course of two weeks more he was beginning to move the thigh and leg and the toes to such an extent that I felt very confident of a good result and made a very hopeful prognosis to the friends. But just when returning motility was giving us the most encouragement there began a rapidly progressive atrophy of the muscles of the calf. This atrophy is permanent, and the result you now see. The tibialis anticus and peroneal muscles, not opposed by their antagonists have a tendency to draw the foot outwards and upwards; so that as he walks the foot comes down on its heel and inner side, the toes following with an apparent and audible flap when he has his shoe on. You will also notice that the dorsal flexion of the foot can be carried to a much greater degree than the normal, or what is possible on the sound side. This is due to the completely relaxed condition of the muscles of the calf. Sometimes in these cases the preserved muscles become permanently shortened, owing to a lack of antagonism from the paralyzed muscles. It is in this manner that the bad deformities which frequently follow this disease are brought about. Fortunately the deformity in this case, compared with the atrophy is slight.

Another fact of this affection is here exemplified, namely, that the muscles are almost invariably found atrophied in groups according to their function or physiological association. For example, in one case it will be the extensors, in another the flexors.

There is here but very slight shortening of the affected limb. Often, however, the shortening is very considerable, owing to an atrophy or an arrest of development in the bones, which is often disproportionate to the muscular atrophy.

In the history and present appearance of this case we have a good picture of *acute infantile spinal atrophic paralysis*, or what is better named from the morbid anatomical changes in the spinal cord, *poliomyelitis anterior acuta infantium*. We add the word infantium because, first, this affection appears very much more frequently in infancy and childhood, and secondly, that although there is an affection occuring in adults which is pathologically identical, yet the symptomatology is so different as to lead authors on this account to describe the infantile form separately. Pathologically it is an inflammation of the gray matter on the anterior horns of

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the cord, resulting in the destruction of a greater or less number of the motor nerve cells which are located there.

The clinical history of the disease is generally divided into the following stages: (1) of invasion (febrile stage); (2) remission; (3) of regression of the paralysis; (4) of atrophy (with deformities following).

In the clinical history of this case you will see that four such periods may be quite conveniently made. Many cases, however, cannot be made to coincide with any general description. Sometimes the febrile stage is protracted and may be accompanied with delirium and other cerebral symptoms, or even with convulsions. Sometimes the paralysis comes on very gradually, the diseaae being subacute in its whole course. Days may pass before the character of the trouble is recognized. Not infrequently I have seen this disease mistaken for cerebro-spinal meningitis.

In this case the treatment has been thorough, systematic, and persistent; massage, rubbing of the skin with the dry hand and with stimulating liniments, etc., kneading and slapping of the muscles, and the galvanic and foradic currents. And yet you see the condition of things that exists. We should always persist with an energetic local treatment in these cases. Yet never be disappointed with the results. As soon as I recognized the character of the trouble I gave the baby, for such he was then, large doses of ergot. It is very doubtful whether it did any good. In the great majority of cases we are unaware of what is going on until we discover the paralysis and then it is, in the same proportion of cases, too late to accomplish any thing with internal remedies. However, on the best authority, ergot in large doses should be given in all inflammatory and congestive condition of the cord We shonld also resort to local and antiphlogistic measures, hoping at least to influence the course of the disease.

Case II.—This little girl is nearly three years old. She made her first appearance at the clinic on July 16, 1887. Her mother gave a brief history, that on the night of the fifth of July, the patient was taken with a high fever, vomited and was restless. Prior to that time she had been perfectly well and hardy. On the morning after the attack she could neither sit up nor use her lower limbs. She had been in this same helpless condition since, and was very restless and fretful, constantly complaining. When we examined her we found, as nearly as we could determine, a complete paraplegia. Not only was there a paraplegia but a total inability to sit upright either on the mother's lap or in a chair. When put in certain positions the child would cry out with pain. Especially was this the case when she was turned onto her face across the mother's lap. On examining the spine I imagined I found in the lower dorsal region a point of tenderness, a point, where as often as I reached it, pressing my fingers up and down the spine, caused her to wince and complain of pain. I felt uncertain about this and sent her to Dr. Harry Hodgen for an examination. He assured me that there was no disease of the vertebræ. There was no fever. Since that time, about three months now, she has been under my observation. Within two weeks the irritable condition in which we found her had passed away. By September 16, she was walking, but in a cautious manner, like a child just beginning. She frequently fell, her legs seeming to give way under her of a sudden. When she began walking again I noticed that her body inclined to the left side. I was on the lookout for atrophy of some of the muscles, for I was by this time satisfied about the nature of the trouble. Of late her visits have been much less frequent. Her power of locomotion having improved, her parents thought her about well, and contrary to my instructions did not bring her to me. A short time ago they brought her, stating that there was a big lump in her stomach. I found the condition that you will now see. When I strip her and turn her back to you, you observe a very marked bulging in the lumbar region of the left side. When I turn her side to you, you see the undue prominence of her abdomen, I think you can also observe that the left side is more

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prominent than the right, the belly not being symmetrical by a good deal. This condition is due to a paralysis and atrophy of the abdominal muscles. On manipulating them they have, compared with those of the other side a flabby feeling. When she cries or coughs, or where there is any extraordinary respiratory movement, the bulging is much increased.

I find Dr. Hodgen at the dispensary this morning, and he has kindly consented to remain and show you the proper manner of examining the spine. You notice that his manipulation causes her no pain whatever, and that the spine is perfectly flexible. He also shows you the method of detecting an irritable condition of the psoas muscles when present. There are no evidences whasotever ot spinal disease. But you will notice that when the doctor puts the patient into a position to bring into play the erector-spinal group of muscles, those on the right side stand out much better than those on the left, showing that the latter set are atrophied. They are in the same condition as the abdominal muscles of the same side.

We have here then another case of anterior poliomyelitis. Contrary to the rule, the extremities seem to have escaped entirely. There is no evidence of atrophy or paralysis in any of them.

I wish to call your attention to one feature of the case especially. In this affection there is generally no pain.

In this case there were for the first ten or twelve days unmistakable evidences of pain. The absence of pain is accounted for by the fact that the disease is confined to the anterior or non-sensory portions of the cord. In diseases of its posterior or sensory portion pain is often a prominent symptom, as for example in locomotor ataxia. However, there are good reasons for believing that in some cases the disease begins in an extensive congestion that may extend to all portions of the cord, but later becomes narrowed down to an inflammation of the anterior cornua. In such cases we would expect to find pain and other disturbances. I believe this to have been such a case not only on account of the pain that was at first present, but this opinion is strengthened by the fact of a complete paraplegia, that in the course of a few weeks disappeared entirely, showing that an extensive area of the cord was temporarily attacked, which escaped the final permonent changes that have unquestionably taken place.

Case III.—This little patient is something over a year old. He had an attack of poliomyelitis about nine months ago, the evidences of which you may see in the leg. There is also a satisfactory and clear history of this trouble. There is, as you see, a decided talipes equinus. In a former lecture I explained to you how the deformities that often occur in these cases are brought about, namely, by a shortening of the healthy muscles, due to an absence in the paralyzed muscles of the normal, physological antagonism.

The shorteningis so much here that the foot cannot be brought to a right angle with the leg by ordinary manual force. Yet, there does not appear to be much atrophy of the anterior muscles of the leg. The appearance though is deceptive. As I pinch up the skin on the anterior surface of the affected leg, you notice it comes up in a much thicker roll than on the sound one. This is explained by the fact that there is beneath a considerable deposit of fat. There is often in these cases this abnormally abundant accumulation of fat under the skin and about the muscles, making the affected extremity look quite plump, and not much different in size and shape from the opposite healthy one, when at the same time there may be a very apparent difference in power and usefulness of the two, and when an electrical test will show a degeneration of the muscles on the unsound side. Unless we remember this fact there are instances in which we would be deceived. Do not get this condition confused with a fatty degeneration of the muscles' where there is a substitution of fat for the muscle, the muscle tissue ifself being changed to fat.

Here we have simply a deposition of fat in the connective tissue about the muscle, this

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tissue proper being preserved, but changed in appearance and bulk or atrophied.

Case IV.—The patient is very large for his age, being only two years old, but he is a well-proportioned, well-nourished, fine-looking child, and perfectly sound, except that his left lower extremity is atrophied and weak, the result of a poliomyelitis of six months standing. There is nothing of special interest in the case beyond what you have seen in cases presented at former lectures. But I present the patient to show you the methods of making electrical tests.

The difficulty I have here in making a satisfactory examination is frequent enough. Most children fight shy of a doctor. Especially are they apt to resist any such an amount of handling as is necessary in applying the electrodes. He makes just as much fuss, as you see, and kicks as hard where there is no current as when it is passing. His resistance is not due to pain, for I am using a very mild current, as is indicated by the needle of the galvanometer—milliampere-meter—You will be able though to see plainly one point, that when with the pole-changer I close the current there is a more forcible contraction in the affected muscles when the electrode applied over them is positive. On the sound side you observe that just the reverse happens, the strongest contraction being under the negative electrode when the current is closed. This is evidence of a degeneration of the muscles, and the phenomenon you have just witnessed is the first step for you to learn in familiarizing yourselves with the reaction of degeneration.

BACTERIA FROM A BOTANICAL STANDPOINT.

BY PROF. WM. TRELEASE,
Member of the Faculty of Washington University.

Read before the Alumni Association of the St. Louis Medical College, Jan. 18, 1888.

Bacteria.

As a layman, I feel some diffidence in addressing an association of professional men, some of whom are far from inexperienced in the subject that I have been asked to present. Indeed, the only excuse that I can offer for appearing before you is to be found in the close relation that the science of botany bears to that of medicine. I trust, therefore, that the feeling may be understood which prompts me to consider my subject from the botanical side, and in its bearings on laboratory rather than clinical work.

History.

Although bacteria have been known since the time of Leuwenhoeck, who recognized certain of them in 1675, and various attempts to classify them have been made, beginning with that of Mueller, in 1773, bacteriology as a science can scarcely be said to extend farther back than the year 1872, when Professor Cohn, of Breslau, published the first of a series of memoirs on the subject. While the study of bacteria has in the past been made on the one hand largely by botanists, and on the other by medical men, it is now passing into the hands of specialists whose training has been that of the best medical schools, and whose familiarity with the microscope and its accessories, and with the most approved histological methods is unsurpassed.

Classification.

The position of bacteria, in the organic world, has often proved puzzling. Could we adopt the convenient method of recognising an *omnium gatherum* for the lowest living beings, such as is afforded by the Protista of Haeckel, it might include the bacteria, which combine some of the characteristics of animals with those of plants. Such a group, however, fails to give satisfaction, because it needs frequent revision as natural history progresses. Nor does it appear to please either the zoologist or the botanist, who are not satisfied unless they can range every organism in one or other of the great kingdoms of nature. Without stopping to discuss their animal relationships I may say that there is today little reason for disputing the vegetable nature of bacteria, first recognized by Cohn, in 1853; nor can there be much doubt that they stand at the foot of the ladder.

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Although it fails to give satisfaction in some of the details of its application, one of the most philosophical attempts to classify the thallophytes or lower cryptogams, is that which recognizes four principal groups, protophytes, zycophytes, oophytes, and carpophytes, each composed in part of fungi; and in part of algæ, while lichens fall bodily among the carpophytes. Bacteria fit in the first of these groups very naturally. Strictly speaking, they are unicellular plants, without a nucleus, so far as is now known; their homogeneous protoplasm vacuolated at certain periods of growth, and invested with a gelatinous wall or sheath, through which vibratile cilia or flagella may protrude.

Life History.

Their development and transformations are quite as simple as their structure. Fission, in one or more planes, gives origin to new individuals, which continue to increase in geometrical progression until the supply of food fails, or they feel the influence of unfavorable conditions, to which some species appear to readily succumb, while others promptly form internal spores, more resistant than the vegetable cells. When the period of danger is over, new vegetation is begun. Sexual reproduction is entirely unknown among them.

While bacteria are unicellular, in that each cell may perform all functions of the species it belongs to, they by no means always occur as isolated cells. On the contrary, the gelatinous wall that surrounds a cell most frequently retains its continuity so as to enclose the daughter cells for a considerable period of their existence. As a result of this cohesion, filaments arise, like those of the hay bacillus (*B. subtilis*), and the common water cladothrix (*C. dichotoma*) films, the so-called mycoderma, may form on the surface of fluids; or solid or semi-fluid masses—zoogloæ—may appear, such as are well known in cultures on potato.

Size.

The individual cells that compose these colonies are often extremely minute. .001 mm. is a common diameter for micrococcus cells, so that a billion of these might lie within the limits of a cubic millimeter, and yet leave a considerable part of the space unfilled. Some species fall even below this size, while on the other hand a considerable number exceed it, yet without ever becoming more than excessively minute bodies.

Physiology.

Bacteria are sometimes for convenience classified according to the effects they produce, as phosphorescent, chromogene or pigment-forming, saprogene or putrefactive, and pathogenic species. But such a classification may be misleading at times, for it has been abundantly shown that some of the zymotic germs produce characteristic pigments, and there is much reason for believing that some of the most virulent of them are capable of multiplying as saprophytes in fluids containing organic matter, from which, in one way or another, they infect the animals they are capable of causing disease in.

The relations of bacteria to their surroundings are worthy of far more consideration than can be given them in the time at my disposal. Delicate to the last degree, while in active vegetation, some are killed by drying in the air; others cannot survive a comparatively slight increase in temperature above that at which they thrive best; the effect of frost on some disease germs is well known; the presence or absence of a limited amount of oxygen may decide between the life and death of others; while some of the most dreaded pathogenic species that enter through the alimentary canal are unable to survive the acidity of a healthy stomach, containing something to become acid over. Other species are sensitive to light, one of these to such a degree that its discoverer, Engelmann, of Utrecht, called it *bacterium photometricum*.

One of the prettiest physiological methods of the decade is that of Engelmann, based on his discovery that the movements of common septic forms are closely dependent upon the presence of oxygen. So sensitive are they in this respect that an infinitesimal quantity of this gas may be detected in a drop of fluid by their behavior, a quantity very greatly below that recognizable by any known chemical

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method. By using this test for the liberation of oxygen, which is a regular attendant of assimilation in the sense in which botanists use that word—it has become possible to study this important process, not only in individual cells, but in their several parts, in pure monochromatic light of sufficient intensity from any part of the incandescent spectrum.

Rapidity of Multiplication.

Small as they are, bacteria are by no means insignificant. Like aphides and other small insect pests, they possess the power of multiplying with great rapidity, but they far exceed their most active competitors in this respect. Cohn has calculated that a species undergoing fission once an hour, which is not too high an estimate for some species, under favorable circumstances, might count nearly seventeen million offspring at the end of twenty-four hours, while in about a week, the number could be represented only by the use of fifty-one figures, so that it is practically meaningless to the ordinary mind; but to give some means of comparison, he calculates the space that these microscopic beings would occupy if each were about twice the size of that which I have spoken of, and finds that in five days the progeny of a single cell, if all survived and were equally prolific, would occupy 928,000,000 cubic miles, the volume of the ocean. Of course, their reproduction is checked greatly by unfavorable conditions and by their enemies, but what wonder if the germs of putrefaction and disease are well nigh omnipresent?

Nutrition.

Though bacteria are exceedingly minute and simple beings, we have seen that their power of multiplication, if unchecked, is incomprehensibly great. Their influence on higher organisms is also entirely disproportionate to their size. Containing no assimilating pigment, they resemble other fungi, as well as animals, in being dependent upon organic matter for their nutrition; hence they must live either as saprophytes, utilizing the substance of dead animals or plants, or as parasites, obtaining their food from living beings,—often at the expense of the health or life of the latter.

Effects Produced.

Most persons are doubtless inclined to look upon bacteria, as they do upon insects, as noxious. Unfortunately, in the case of many species this is true, from our standpoint. Milk sours, butter becomes rancid, and meat decays in our pantries; the florist finds his hyacinths rotting, and the horticulturist loses his pear and crab trees by fire-blight; our horses are glandered, the great American specialty dies of swine plague, our dogs run mad, cattle and sheep die in thousands of anthrax, and man, himself, is not exempted from such terrible diseases as septic poisoning, small-pox, diphtheria, cholera, yellow fever, tuberculosis, and numerous other zymotic diseases, far better known to you than to me, results attributable, with more or less foundation in fact, to the action of bacteria.

But the story is less than half told when the harmful species have been enumerated. We should scarcely know ripe cheese were it not for the butyric ferment. Vinegar would be unknown were there no bacteria. Dead animals and plants would remain as unsightly and cumbrous blots upon the earth, awaiting the slow process of oxidation, and largely useless for reentrance into the cycle of life, without their kind offices. Possibly some of the digestive processes of ruminants,—and perhaps other animals,—could not be carried on without their aid; and without the nitrification of the soil through their agency, the amount of nitrogen available for plant nutrition would be so small that it may well be questioned whether there would be any considerable vegetation, without which animal life, as we know it, would be impossible. Let us, therefore, recognize our friends among these smallest yet most important of living beings, while we endeavor so to know our enemies that we may reduce their influence to a minimum.

Morphological Characters.

The individual cells of different bacteria range from spherical or slightly ellipsoids (*micrococcus*) to oblong or cylindrical (*bact*

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rium) or cork-screw-shaped (*spirillum*). Their size, mode of multiplication, and such internal structure as can be made out directly or by the aid of reagents or staining fluids, furnish additional aids in the distinction of species. But each of the characters is usually variable within certain limits, in a given species, and the limits of variability of closely related forms not infrequently overlap, in one respect or other, so that the most experienced investigator might be pardoned for declining altogether to pronounce judgment on a species that he was perfectly familiar with, if it were presented in a fluid culture, or even in a mounted slide, well stained but from a source of which he knew nothing.

But while the morphological characters of bacteria, as seen under the best microscopes, may fail when taken alone for discrimination between related species, what must be regarded as invisible structural differences, render it possible to stain one species with a pigment that is not taken up, or is readily parted with, by another, very similar in other respects. In illustration, I need only recall the *bacillus* of tuberculosis, and the similar germ of leprosy,—now distinguished by their different behavior with reference to staining agents.

Fluid Cultures.

Where the species are isolated in pure cultures, macroscopic characters are often the most valuable attainable. For many purposes, cultures in suitable nutrient solutions in carefully sterilized and plugged flasks and tubes, are useful, especially in the study of species which form characteristic mycoderma pellicles, or diffusible pigments. Cultures of this kind have been much used by both advocates and opponents of the theory of spontaneous generation as applied to lower organisms, and we owe to them many of the brilliant results attained by Pasteur and Tyndall. Indeed, the Pasteur school still makes constant use of fluid cultures. But a serious objection to their employment, lies in the ease with which a foreign species, introduced into a flask by accident, may spread through and contaminate the whole.

Potato Cultures.

For most purposes, pure cultures on solid media are preferable to those in fluids. The simplest of these is potato that has been thoroughly washed, rinsed in dilute corrosive sublimate, and steamed or slowly boiled so as to be cooked without falling to pieces. The potato is taken from the boiling water in a thoroughly disinfected spoon, halved with a sterilized knife, and placed in a dish under a glass cover,—both of which, after being made chemically and optically clean, have been well sterilized by rinsing with a .1 per cent. solution of corrosive sublimate, or by exposure to a high temperature for some time. By means of a platinum needle, cleaned and heated shortly before it is used, the merest trace of fluid or zooglea to be cultivated, is transferred to the cut surface of the potato and distributed by making a slight scratch with the point of the needle, after which the cover is replaced, and the culture, duly numbered and labeled, is set aside to be examined at intervals for the purpose of taking notes on the appearance of the inoculated scratches. Some cultures are found to thrive best when shielded from light, these are kept in closets; others stand on the tables of a well lighted laboratory; still others are maintained at elevated temperatures that may be controlled within narrow limits by the use of brood-ovens.

With all precautions, many cultures of this sort are contaminated by germs from the air, but in from one to three days the inoculation lines of most of them show, here and there, or for their entire length, minute mostly hemispherical zooglea masses, some of which have developed from isolated cells left by the inoculating needle. If the culture contains more than one species, the fact is easily recognized, from the different appearance of the zooglea dots, each of which may be made the starting point for a new inoculation; or, in case the common "weeds" of the laboratory have intruded, the desired species only is removed to a new culture, and the rest are destroyed. For greater security, potato that has been mashed and made into paste of suit-

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able consistency, after cooking, is sometimes put in plugged test-tubes, and sterilized, after which it is inoculated similarly to gelatinized media.

As a result of the lobing and confluence of the colonies, their varying texture and surface as they mature or become dry, and the pigments that some of them secrete, many bacteria are easily known at sight, when grown on potato, though no study of them is complete even from a botanical stand-point until they have been examined living, under the best powers of the microscope, and a thorough comparison is made of permanent preparations, colored with suitable staining fluids.

TRANSPARENT SOLID CULTURES.

By far the best methods however, are those introduced by Koch, and applied by him and his school to the investigation of many species of chromogene and pathogenic bacteria. In these, the potato is replaced by a transparent substance which can be impregnated with any desired nutrient solution, and sterilized thoroughly. Where the temperature need not be elevated, from 5 to 10 per cent. of gelatine, neutralized or rendered slightly alkaline by the addition of sodium carbonate, is added to a suitable decoction of meat or other organic matter, and, after cooking aad filtering, a few cubic centimeters of the mixture is placed in each of a number of sterilized test-tubes, that are subsequently plugged with sterilized cotton, over which a layer of filter paper has been placed in some, cases to prevent the introduction of molds the mycelium of which is sometimes able to pass through cotton alone. The contents of the tubes are then sterilized by protracted boiling, or preferably by boiling for about ten minutes at a time on four or five successive days, which is more certain, inasmuch as a single boiling kills the vegetative germs, while in the interval, possible spores that may have survived one or more exposures to the elevated temperature, are given opportunity to vegetate, so that their progeny is destroyed by the next cooking. After cooling, each tube is inoculated by removing the cotton plug while the tube is inverted, and scratching or pricking the gelatinized matrix with a needle that has been carefully fired, and, when cold, dipped into the material from which the culture is to be started. Contamination of such cultures is rare, if each step has been properly taken, and the growth of the colonies of bacteria is followed even better than on potato. Instead of test-tube cultures, slide-cultures may be started by pouring a sufficient quantity of the sterilized solution on sterilized glass slips, where it is allowed to harden. After inoculation, the slides are kept in suitable chambers, to prevent evaporation and infection. For some purposes, this method has advantages over the use of tubes, but the cultures are more liable to contamination by extraneous germs.

Some species develop well only at a more or less elevated temperature, often above the melting point of gelatinized solutions,—which is about 25° C. These are grown in a medium prepared by adding 1.5 to 2 per cent. of agar-agar to the nutrient solution, which then melts only at 40°-42° C. One of the peculiarities of certain species is that they liquefy the gelatine medium in their growth. On agar-agar, however, their zoogleæ may develop characteristic forms without this drawback.

For some species, especially pathogenic forms, serum, obtained by causing the coagulation of blood carefully drawn from a freshly slaughtered animal, is sterilized by exposing it in sterilized and plugged tubes to a temperature of about 58° C. an hour each day for about a week. While this does not coagulate albuminoids, it destroys bacteria that are in active vegetation, any spores that may have formed being allowed to germinate in the intervals between the different sterilizations. The serum is then solidified,—but not coagulated,—by maintaining the tubes at a temperature of 65°-68° C. for a half hour or more. When necessary, the nutrient power of the mediun is increased or modified by the addition of beef-infusion, etc, Cultures on serum are conducted essentially as when gletatine is used.

[TO BE CONCLUDED.]

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SUPRAPUBIC CYSTOTOMY FOR PAPILLOMA.

BY G. W. HOLCOMB, M. D., CLINTON, MO.

Mr. D. aged about 26 years, came under my care last spring, suffering from vesical catarrh. Mr. D.'s trouble was of four or five months duration. He had been under treatment most all that time without being materially benefited. He had in addition to the ordinary symptoms of cystitis a hemorrhage from the bladder when he would take moderate exercise. I put patient upon a treatment of ergot, digitalis and benzoate of ammonia internally. Washed the bladder thoroughly with boracic and carbolic acids in warm solution every other day. This treatment was continued six or eight weeks with no good results.

In the mean time I had sounded the bladder several times, and could not feel a calculus or any thing else positively. Once in a while the sound would strike something on the base of the bladder which did not feel like the vesical walls. Examination per rectum gave an indistinct doughy feeling of base of bladder and an apparent thickening of the vesical wall in that location.

Patient was kept upon the treatment indicated, almost all summer. A positive opinion as to the nature of the case had been held in abeyance up to this time. The vesical tenesmus and hemorrhage had become more troublesome, and the patient was clamorous for something more tangible in the way of treatment and diagnosis. So about Sept. 15, I ventured the opinion that patient had a tumor of some sort, and that an operation, (at least for diagnostic purposes) was necessary for the removal of the growth. Mr. D. did not relish the idea of an operation. I heard no more from him until about Oct. 1st. He then came back and told me that he had consulted Dr. Halley, at Kansas City, and was advised to have an operation done at once. Oct. 20, I, with the help of Dr. Gibbons, of Clinton, Mo., and Dr. Hunter, of Ill., preformed suprapubic cystotomy after the manner of Sir H. Thompson, using as a rectal bag a pig's bladder, had no trouble to find and hook up the bladder, did not see the peritoneum during the whole operation. Upon opening the bladder I found to my surprise a mass of papillomatous growths covering the entire trigone. The tumors were not pedunculated: on the contrary they were sessile and very thickly set together so as to feel almost like a large flat tumor. The removal of these tumors with my scant supply of instruments was a slow procedure. By lifting the growths with a vulsellum and cutting under them with a pair of scissors curved on the flat I removed a large part of the nest, then with a sharp curette I scraped away the remainder of the tumor tissue as carefully as possible. However, I could not effect its removal as thoroughly as was desirable without doing too much damage to the vesical walls. I am confident that I dissected away an inch and a half square, or more, of mucous membrane. Hemorrhage was rather free though easily controlled by irrigation with carbolized water. A rubber tube was left in the wound, one stitch placed in the upper end of cut, which was about three and a half inches long, the tube was removed on the sixth day. Urine passed naturally on the eighth day; the bladder was washed every day with carbolized water for 12 or 15 days.

My patient made a good and rapid recovery and although it is too early to say that a radical cure will result from the operation, I can say positively the man's condition has been materially bettered. There has been very little bleeding since, and the bladder is not so intolerant of urine; muco purulent discharge and vesical tenesmus much less, and I think the patient will get permanently rid of his tumors.

The literature of this class of tumors is very sparse and conflicting, authorities differ widely as to the propriety and mode of operating. I selected the high operation in this case because the man was muscular and had a very deep perineum, secondly because I think suprapubic cystotomy more surgical than the perineal method. I see no surgical reason why vesical tumors should not be included in the list of operative tumors.

Such neoplasms are not possessed of a very great degree of vitality and may slough with a partial wounding where it is not practicable to effect the complete removal of the growths.

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J. H. CHAMBERS,
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SATURDAY, JANUARY 28, 1888.

THE PHYSICIAN RESPONSIBLE.

The American people of to-day are so accustomed to having a voice in all that concerns themselves they are not inclined to place so important a matter as their health entirely in the hands of others.

In a recent editorial in this journal on "The Amateur Doctor," the unwisdom of a sick man's practicing pseudo-economy by becoming his own physician is clearly shown by the writer, but he does not call attention to the fact that not a few of even our best practitioners unwittingly encourage this course.

A physician, thinking too little of the possible consequences says "You look as if a little iron would do you good; suppose you get a bottle and try it." The patient makes his own choice from the many patent nostrums of the druggists' shelf that have "iron" on the labels.

Again it is said, "When you have emptied this bottle, if you find it has done you good, have it refilled and continue taking it." This of course implies that the patient is a judge of his own physical condition which though possibly true in some instances, certainly leads to serious mischief in others. So long as a patient is sick enough to need medicine, he should continue under the direction of the physician, for it is as important to know when to discontinue a medicine as when to begin its use. To the, "Doctor, I don't feel well; what shall I take?" the reply is too often made "Well, I would take a little blue mass," leaving the patient to judge for himself as to the size of each dose and the number of doses necessary. Is it to be wondered at, that with such encouragement, he falls into the habit of getting duplicate copies of prescriptions, for future use, and that he does not hesitate to treat his neighbors and friends with the same. If he meets with success, the physician gets no credit, but is robbed of a just fee; if with ill success, the physician bears the brunt of the failure.

In certain country districts the physicians often go so far in their encouragement of the "Amateur Doctor" as to direct the treatment of patients suffering from so grave an illness as pneumonia without so much as seeing them once. It is presumed that these patients have but little money to pay for medical services, but the precedent is greatly detrimental to both patient and doctor just the same. It was the abuse, and not the scientific use of medicines that induced Dr. Holmes to say: "If all the drugs in the world were thrown into the sea, 'twould be better for humanity but worse for the fishes."

The physician who keeps abreast of the times—who knows that his judgment is valuable to his patients, should hold that judgment at its true value and not cheapen it by carelessness of speech or conduct.

A SANITARY NECESSITY.

It is extremely unfortunate that in matters pertaining to health, people continue to be almost as superstitious at during the dark ages, and when death results because of the transgression of hygienic law they will persist in accusing "An all wise Providence" of having "removed the beloved one."

When the yellow fever prevailed in our southern cities to such an alarming extent, there were those that were ready to accuse the sufferers of almost every known sin; when in reality they were no worse than people generally, except inasmuch as their cities were in an unsanitary condition and their drinking water was derived from a suspicious source.

When small-pox was raging in Canada a few years ago the same ignorance was shown

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by many, inasmuch as they refused the protection that vaccination offered, and by others by refusing to observe well established laws to prevent the spread of this dread disease.

In Italy the people becoming desperate at the rapid spread and great fatality of cholera, now epidemic in that country, accused the physicians, the gods, the witches, and indeed almost every conceivable and inconceivable thing excepting the right one, which was their supply of drinking water. Upon investigation of the water supply, by competent physicians it was found to be miserable to begin with, and also fearfully contaminated by cholera germs.

To the physicians that are up with the times, it should be a pleasnre to instruct people in hygenic laws, and to counteract these superstitious ideas acquird from superficial reading and from ignorant physicians who are disposed to ascribe all ills to atmospheric changes when writing senseless articles for the daily press.

The policy of the merchants in every city should cause them to look after the sanitary condition of their city just as they do the freight rates to and from the city, or as they would the conventions held in the city, etc.

We in the city of St. Louis are so situated that we can have a plentiful supply of water from a good source, as the river water is uncontaminated at this point.

We unfortunately have a large number of our people supplied from wells, a large number of which are known to be bad, and the rest are certainly suspicious. Any of these wells are likely to become contaminated at any time with cholera, typhoid, or some other contagious germ disease. It seems to me that the good people of our city and especially our public officers should be alive to the danger that threatens, and should take steps for protection from such an invasion as is hinted at above, and not wait until it is upon us, for then it is almost too late. It is probable that thousands of lives would be sacrificed ere the sources of disease could be removed. I hope that the physicians and people of St. Louis will lend aid in this matter and that the great danger to the health and prosperity of our city may be speedily removed by the closing of the nine thousand wells from which thousands are daily drinking disease.

J. R. Lemen.

The Course of Study in Our Public Schools.

The Public School system of St. Louis has long been a source of pride to our City, but as time has advanced the number of studies has been so multiplied in the grammar schools as to severely burden the minds of the rapidly developing scholars, and the expense has become so great as to force the cry of "halt" on the part of the long suffering tax payers.

The imported kinder-garten luxury was adopted a number of years ago, but there can be no question that it is worse than a superfluity, taking the young and tender child from its mother when most in need of her fostering care, cramming its youthful mind and disturbing its uncrystallized nervous centers to the point of "St. Vitus' dance" or some other neurosis, when it should rather be out doors getting pure air, sunshine and physical exercise through the medium of natural childish play.

The argument that the kinder-garten relieves the burdens of many poor mothers is beautiful in sentiment, but, the furnishing of wet-nurses, toy whistles, and soothing syrups could be justified by the same reasoning.

For fifteen years or more the German language has been taught in all the grades of the various schools, and the only warrant for so doing was the fact that a large part of our population were German, and among our very best citizens.

At the last election however, for members of the School Board, the citizens united without regard to party, and elected men who pledged themselves to at once remove the study of all foreign languages from the curriculum, and thus save sixty thousand dollars per year.

If this Reform Board will go further and abolish the "play gardens" where infants are

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taught how to make mud pies, and limit the school hours for all children under twelve years of age, to three hours each day, for eight months in the year, they will save the people's money and serve the children well.

In the early days of our country the youths were fortunate who secured three months schooling each year, and they matured into strong, healthy, substantial citizens to say the least.

The forcing plan of stuffing rapidly growing minds with heavy, undigestible matter, impossible of assimilation early and late, will lead to the development of a race of mental dyspeptics, which if continued in its unfortunate career will be ripe for the noxious influence of nihilism, socialism, or any other form of fanaticism antagonistic to the public good.

There has been an effort recently made, we understand, to add to the work already given to the primary departments, that of physiology, particularly in the direction of its relations to the effect of alcohol upon the human system. This is thoroughly absurd, being entirely beyond the grasp of the average infantile mind, and why burden further an already overloaded victim? And besides the query may well be propounded whether the puerile effort to give a child a smattering of an abstruse science, prompted thereto by a desire to convey a moral lesson, may not instead, since human nature is the same the world over, incline the young idea to experiment in the direction of determining the truthfulness of the theories advanced regarding the baneful effects of the agent against which they are warned.

Apropos to the subject of the study of physiology in the schools, the *New England Medical Monthly* says: "Among the various branches of study that have been introduced into New England public schools of late, in deference to a supposed sentiment, there is not one more unnecessary nor more useless than the science of the body. In medical schools, whose students ere presumed to approach their course only after a preparatory course, more or less extended, and to bring to their work trained intelligences, there are no problems more difficult to solve, no details more difficult to learn than those of physiology. Its very foundation theories have still their doubting opponents, and those who enter upon its investigation must be prepared either for a long and careful study, or such merely superficial acquaintance as will enable them to pass examination;—to be promptly forgotten afterward."

We are very much inclined to the opinion that the less one knows of their own mechanism the better. In this direction, at least "ignorance is bliss" and happy is the individual who knows not that he has a stomach or a liver.

In our judgment these various ornamental and superfluous branches might well be dropped, and in their place establish a department of physical culture, engraft the gymnastic feature of the "Turn Verein" of our German friends, upon our schools to the end that the children of the masses may be possessed of a sound mind in a sound body.

I. N. Love

Dental Irritation as a Factor in the Causation of Epilepsy.

Dr. A. P. Brubaker has collected and published a series of sixteen cases (from as many authors) of epilepsy, in which the correction of disorders of the teeth put a stop to the epileptic fits. Of these ten were from carious teeth which were extracted. Three were from retarded eruption of teeth, in which the lancing of the gums gave relief. In one case the removal of a plate of false teeth, the soldering of which was discolored, and the substitution of a hard rubber plate was sufficient. In two cases the overcrowded condition of the teeth was relieved by extracting some of them which gave relief.

No one has yet determined just what the nervous explosion of an epileptic convulsion is, but it is a clinical fact of the highest importance that the removal of the causes of many forms of peripheral irritation lessens the frequeacy of the convulsions, and in some instances checks them altogether.

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It cannot be said that the disease in these cases is cured, for to reproduce the exciting cause is to bring on another attack. But as each attack serves to advance the pathological changes in the cerebral blood vessels, it is of great importance, aside from the comfort and safety of the patient, to lessen the frequency of the convulsions.

Dr. Stevens, of New York, has reported a number of cases in which a lack of balance in the muscles of the eyes was the exciting cause. Tenotomy of the proper muscles prevented a recurrence of the convulsive attacks.

Treatment of Felons.

Dr. W. D. Hutchings gives some useful information on "When to open a Felon and How to Abort it."(*Indiana Medical Journal*). After defining the initial symptom to be the sensation of a splinter, briar, or other small foreign body in the part where the disease is locating, he emphasizes the fifth or sixth day of the disease as the *time* for the free use of the lancet. Almost all cases that have applied to him after the eighth day have made tedious recovery.

His method of aborting the disease in its initial stage is to force absorption by wrapping or binding the finger with a cord one-eighth of an inch in diametor—commencing at the extreme distal end of the finger and carrying the cord to the proximal joint above the local error, and letting it remain until pain and throbbing become unendurable. Then he quickly releases the finger, and after resting it a few minutes, again rebinds it still more firmly, in the same manner, thus binding and rebinding for half or three quarters of an hour, until the finger is reduced to two-thirds its normal size. "By this procedure" says the doctor, "I have never failed, when the subject presented himself in time to abort paronychia, or to convert it into a superficial abscess." Considering the pain that accompanies, and the deformity that follows, this disease, this method, though a severe one, certainly should be tried.

EDITORIAL PARAGRAPHS.

BY I. N. LOVE.

A point worth remembering—that ninety per cent of all errors in medical and surgical practice are due to carelessness rather than ignorance. Familiarity with the practical affairs of our profession may develop a contempt for the minor details of our work. Other things being equal the one who pays religious regard to the little things will best succeed, bearing in mind that "moments make the year, and trifles life."

Another point important to keep in mind is, that the oil of turpentine, cheap and always within reach, is one of the most valuable remedies in the materia medica, as a local and general stimulant, as a germicide and preventer of fermentation, and last, but not least, internally administered as a checker of bleeding.

We learn from the *Brit. Med. Jour.* that Dr. Reformatsky makes the interesting announcement that clarionet-players are very prone to caries of the upper central incisors. Of the horn-blowers affected seventy-five per cent were thus affected. More and more every day are we confirmed in our belief in the law of compensation. For years have our tympanums been on the border line of disintegration, occasioned by the rasping splitting notes of the blower of the big bassoon, but we feel better now that we know that toothache will claim him for its own.

From the *Med. Standard* we perceive that the Chicago Medical Society "needs to redeem itself from its present decadence by encouraging more critical discussions, by an impartial enforcement of the five-minute discussion rule, and by tolerating less dictation by members of unsavory political and diploma-mill affiliations. The society should take a more active part in enforcing the Medical Practice Act, the Abortifacient Act, and in securing medical control of the county institutions. These topics are better worth atten-

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tion than the lucubrations of germ crammed men using their recent voyage to Europe as a personal advertisement."

Send a committee down to St. Louis and take lessons from our medical society how to conduct things gracefully.

Professor Joseph M. Matthews says: "In many instances the administration of iron is harmful rather than beneficial. Indeed I believe this is the most abused of all drugs."

And Dr. Matthews is right, but the profession, aided and abetted by every corner druggist, has trained the people into the idea that it is the cure-all for every ill.

Often have I heard the instruction given, "just get a little tincture of iron, and take ten drops three times a day, or some beef, wine and iron." The simple name is suggestive of strength, and for that reason is alluring. A popular, "wishy washy," effervescing drink, containing iron and phosphorus, has been thrown upon the market, and is being guzzled by the gallon by thousands of men, women and children in St. Louis. And so the good work goes on of impairing digestion and begetting habits of constipation.

The motor supply of Progress having been used up in mental energy it has at last reached the point where mental work deprives it of the muscular power to get up and walk without a stick or something to hold to.

We are extremely sorry and desire to extend our assurance that all good men should aid in holding up the hands of Progress at all times and help it forward in its ever on ward march.

When an editorial combination is completed between two such wheel-horses as Frank Woodbury and William F. Waugh, of Philadelphia, the "Times are ripe" for mag nificent work.

The *American Medical Association Journal* (emphasis on the Journal) has long been a source of pride to us all. In the latter part of '87 it became a "pink of perfection," and is now flourishing like a green bay tree. May it ever continue green in the hearts of its loyal and loving subscribers, and may its competitors upon the tempestuous sea of medical journalism never turn green with envy.

The *Med. Record* says that "the mean age at which marriage occurs has been steadily rising since 1873."

This may be true in the effete East, but in the warm and winning West, the "mean age" has passed long before matrimony is dreamed of in our philosophy.

Dr. Waugh, of Philadelphia, speaks in favor of jaborandi in erysipelas. I have used the active principle of the drug (pilocarpine muriate) for this disease for nearly three years past with uniform success. I prefer it for the reason that it is more elegant and agreeable to take, and can be better regulated in its dosage.

In cases of irritable stomach it can be given hypodermically with prompt effect. To guard against its depressing effects a diffusible stimulant should sometimes be given.

There can be no question that the stimulation of the glandular system is the rational treatment of erysipelas, as well as all other septic and infectious diseases.

It was Jenner who said that fame was but the gilded butt for the shafts of envy. Sir Morell Mackenzie can probably respond to the sentiment. Here is one of the shafts which he has received from "One of the German Secret Union:" Morell, fy! thou curmudgeon, thou wilt-be doctor, thou art a bungler! Be by no means proud of the confidence of our Crown Prince; it is now only pity with thee, thou dunce, thou block-head, though ass. Therefore, thou huddler, be on guard, when thou travellest through Germany again, thou knave! (Med. Age.)

Mackenzie is not the first doctor who has aroused resentment by succeeding where others have failed. There has prevailed a notion all these years that failure and adversity are severe tests of popularity among one's fellows and even friendship, but success and prosperity are trials of regard and friend-

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ship which, if sustained, give positive evidence of strength and reliability.

We would suggest to our exchanges that St. Louis, the queen city of the West, "has successfully avoided cholera and small-pox," and the authority which states that she is suffering from an epidemic of crap lice is mistaken. One swallow does not make a summer, nor do a few cases, of pediculus pubis in a fourth class hotel, make an urban epidemic.

Dr. Adams, of Danbury, Conn., is bold enough to announce himself as an advocate of smoking. He thinks the amount of nicotine taken in by absorption is almost inappreciable, good Havanna tobacco containing less than two per cent.

Smoking in moderation is unquestionably of benefit to the majority of men, acting as a calmer and equalizer of the temper, assisting digestion, and is an enjoyable means of sociability among men. We have never learned to smoke, but regret exceedingly that we have not. Good cigars, like good wine and all other stimulants in general use, should be used temperately. The excessive use of any good thing is no argument against its proper use. The demand for anything in reason is largely a justification for its existence. However, we would draw the line at the cigarette. That is an abomination which should be wiped off of the face of the earth. But if you wish to know all the virtues of smoking, call Dudley Reynolds.

CORRESPONDENCE.

NEW YORK LETTER.

NEW YORK, January 15, 1888.

EDITOR REVIEW: The chief item of news in medical circles here, has been the announcement of the death of Dr. Wesley M. Carpenter, aged fifty-five. Dr. Carpenter came to the city some fourteen years ago and at once became identified with our local medical journalism. He was the right hand man of Dr. Shrady on the *Record*, the last issue of which contained a most touching eulogy of his life and work. He had charge of all the reportorial work, and was especially able in the line of society and association transactions. He was secretary of the county medical, pathological and practitioners' societies, and corresponding secretary of the Academy of Medicine. He recently became a clinical lecturer on medicine at the University Medical College and had been for some time one of the curators at Bellvue Hospital. For three years he had edited the *Epitome*. He did not seek any private practice, finding a busy life in the performance of his many official duties.

It is easy to see how difficult it is to fill the place of such a man. In fact no one person can fill it. All over the country he was known as a man of a most attractive personality, absolute integrity and rare ability. His duties naturally brought him in contact with all our leading men and with unusual tact he did everybody justice so far as his work as a medical reporter was concerned.

He had never been in very robust health but had not been confined to the house at all during the last few weeks. He was found dead in his bed one morning, after having appeared the evening previous in as good health as possible. The autopsy revealed chronic Bright's disease.

The project of supplying trained nurses for the respectable sick poor at their homes grows apace, and the success already attained induces not only the continuance but the enlargement of the plan. The Post graduate medical is the direct sponsor of the affair, and a special fund has been raised to carry on the work. Lectures are given to the nurses in the evening and all possible pains taken to furnish them practical training. As a result they are practically equal in efficiency to those educated in the other training schools, and they are furnished to families of small means at considerably less than the usual price.

The society of Medical Jurisprudence, took action at its last meeting on Dr. W. A. Hammond's paper on "Personal Rights and Fraudulent Advertisers," and presented the rough

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draft of a bill to be presented to the legislature. The bill makes it a criminal offence to use a man's name without his consent in any advertisement or publication recommending any kind of medicine, and making criminal the advertising of cases of persons who never existed, or to use a man's name after his death, he not having authorized the use of it while living.

At the last meeting of the County Medical Society, Dr. J. Leonard Corning presented an interesting paper on the treatment of chorea by cerebral rest. He regarded as the first indication in this disease the alleviation of the cerebral erethism. The child should be removed from school and all intellectual work strictly prohibited. We must also induce sleep and "by prolonging the state of unconsciousness enable those reparative processes to transpire in the ganglia which are essential to the complete functional restoration of the cell. To induce this condition, the bromides should be given during the day in increasing doses. The patient must be kept in a darkened room from two to fifteen hours at a time. When the patient awakes during the hours allotted for sleep nourishment in an easily digested and fluid form should be given. The few hours of wakefulness are devoted exclusively to some form of amusement. Reading, writing and even the mildest forms of mental concentration are absolutely prohibited. "This, in brief" says Dr. Corning, "is the method from which I have already seen the most happy results, and from the employment of which I hope and believe much good in future will be derived."

The sum total of the Hospital Saturday and Sunday collection, to date is about forty-five thousand dollars. Of this amount about three thousand only have been designated for special institutions. The collection has been much more general this year than in previous years, and fully twelve thousand dollars have been collected from people who have not contributed before.

Since my last letter the subject of quarantine has been again brought before the public by reason of proceedings at the State capital. A bill has been introduced into the state legislature asking for a quarter of a million dollars to be expended in various ways for the furtherance of the efficiency of the department. The Governor is seeking to remove the head of the Commission, ex-senator Platt, of "me too" fame, who is no better and no worse than the average politician in a responsible office. If the national government would take entire charge of the matter, it would be a vast improvement on the present system.

A measure has also been presented at Albany by a commission especially appointed to consider the best method of inflicting the death penalty. The unanimous recommendation is in favor of electricity, which is declared to be instantaneous and painless.

J. E. N.

LONDON LETTER.

London, Jan. 14, 1888.

Editor Review.—The subject of the treatment of foreign bodies in the air passages is always an interesting one, the cases are so urgent and success when obtained seems so brilliant that one cannot wonder that every recorded case is carefully studied. One of the most interesting and in some respects most important cases of this nature yet published was that brought before the Medico-Chirurgical Society last week by Dr. Cheadle and Mr. Thomas Smith of which the following is a brief account. The patient was a girl of nine years old. The loose metallic cap covering the end of a pencil which she had put into her mouth became detached and was drawn into the throat; urgent choking and dyspnea followed. This was relieved by the passage of a probang down the esophagus and the foreign body was believed to have entered the stomach. There was great pain at the time and violent cough.

Four days later, dulness on percussion and imperfect entry of air into the left chest were noticed for the first time. A week later, eleven days after the accident, there was well marked dulness over the whole of the left side, the breathing was absent on this side

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except over a small area at the upper part, the left side of the thorax was much retracted and the stomach note reached up to the level of the nipple so that the lung must have been much collapsed. The respirations were a little increased in frequency, the pulse and temperature were practically unaffected. There was no dyspnea but occasional short cough aggravated by exertion. The conclusion was arrived at that the metallic cap measuring an inch and a quarter, was lodged at the extreme end of the left bronchus, and it was decided to attempt its removal by the aid of tracheotomy as soon as possible. Suitable provision was made for dealing with whichever end of the cap should present, though it was expected that the open end would be towards the mouth, and for this a pair of suitably curved forceps with external grip were provided.

The isthmus of the thyroid was divided between two ligatures, the trachea freely opened, and the edges of the tracheal wound were attached to the margins of the skin wound by silk sutures. A long probe passed into the bronchus at once detected the foreign body in the position assigned to it, with the open end uppermost, the forceps were introduced and the cap extracted without the least difficulty. The wound was allowed to granulate up and the child made an excellent recovery.

The authors discussed certain points in regard to the physical signs in some detail. They pointed out that it was laid down in text-books that dulness was never observed, this they believed to be a most erroneous statement. At first and until the retained air had been gradually absorbed there would undoubtedly be a resonant percussion note, but as soon as collapse was established they held very properly that the side must become and remain dull to percussion. The chief point in the operation was the wide incision made into the trachea and the stitching of this to the skin wound so that it was kept wide open. This was found to be a great convenience during the operation, as when the trachea is held open by hooks these are very apt to slip, and even if they do not the hands of those holding them are likely to be in the operator's way.

The discussion was entirely on the surgical aspect of the case, the speakers without exception congratulating Mr. Smith most warmly on his brilliant success. Mr. Smith in his reply said he had taken the idea of his forceps from those used in intubation, though he had the poorest opinion possible of that operation, but the forceps had an external grip and were most ingenious. He pointed out the great difference in prognosis according to the nature of the foreign body, and instanced a case where a large sugar-plum had passed into a child's trachea, and in the course of ten minutes or so had been completely dissolved, all symptoms of obstruction passing away.

The rest of the evening was occupied with a very different sort of papers. Dr. Haig made a communication relative to the effect of salicylic acid and its salts on the excretion of uric acid. In a former paper, to which I think I made some reference at the time it was read, he showed that certain forms of headache and the excretion of uric acid in excess might be stopped by the administration of an acid. Salicylic acid however is an exception for though it increases urinary acidity it does not diminish the excretion of uric acid; salicylic acid was nevertheless useful in this form of headache. The explanation that he offered of these apparently contradictory results was that alkalies increased and acids diminished the solubility of uric acid whilst salicyluric acid, the compound supposed to be formed when salicylic acid was used, was much more soluble than uric acid in water and probably also in dilute acids. Dr. Haig believed that his views would be found of considerable value in arriving at an understanding as to the mode of action of the salicylates in rheumatism and allied diseases.

Two poisoning cases have lately been tried which have occupied a good deal of attention on the part of the public. In one a man was charged with causing the death of his wife and son by strychnia, and convicted. The two deceased were taken ill soon after supper

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one evening, and prisoner, the only other person in the house, went for a doctor. When the doctor arrived the woman was pale and pulseless, and it did not appear that she had had any spasm, the son on the other hand had been much convulsed in his limbs,had vomited and was complaining of great thirst: the son died in less than an hour and the mother not long after. Dr. Stevenson the government analyst found traces of strychnia in the stomachs of both, no other poison was detected. It was proved that the prisoner was familiar with the properties of strychnia from having used it in former years to destroy vermin, but no sufficient motive for the double murder was discovered. The statements made by the prisoner at different times were, however, not consistent with each other, and were not in accordance with the facts, and the jury after some deliberation found him guilty. I expect however the sentence of death will be commuted to one of penal servitude.

The other case I am sorry to say concerned a medical man, who was convicted of poisoning his wife with arsenic, and was executed a few days ago. The prisoner was a retired surgeon major, over 60 years of age, well off, and of very good social position. His wife died after a short illness in which gastric and abdominal symptoms were prominent, and the prisoner who attended her himself attributed her illness and death at one time to heart disease, at another to typhoid fever. Within three weeks of her death he married a young woman whom he had seduced during his wife's life time, and it was partly in consequence of the indecent haste of his second marriage that inquiries began to be made about the death of the first. Rumors were started and grew apace until the bo of the deceased was exhumed, when it was proved that she died from arsenical poisoning and not from any organic disease. Now that the prisoner has been executed, some people are trying to make out that the fact that he did not make any confession proves him to have been innocent, but I think the absence of a confession can hardly be allowed to outweigh the many circumstances in the case inconsistent with his innocence. R. M.

WHICH IS RIGHT?

EDITOR REVIEW.—In your issue of Jan. 14, page 35, Dr. C. H. Hughes speaks of Bretonneau as having "differentiated between diphtheria and croup," and says that before Bretonneau's time "croup and diphtheria were treated as one and the same disease." Now, if I understand what Dr. Hughes says, he is either wrong in his statement, or all my reading of the history of diphtheria is at fault. Bretonneau was the first to distinctly and emphatically announce the identity of croup and diphtheria. See any large work on practice or, best of all, refer to Gill's Sanné, which you very correctly announce in your advertisement as "the most complete work extant on the subject of diphtheria."

Very respectfully,

J. F. BALDWIN, M. D.

Columbus, O., Jan. 18, '88.

ANSWER.

In 1826, Bretonneau, of Tours, in a work entitled "Recherches sur l' Inflammation Speciale du Tissu Muqueuse, en Particulier sur la Diphtherite," created the name, and first pointed out in that and subsequent writings the true pathology of diphtheria, distinguishing it from other conditions with which it had been confounded, especially by English authors, under the common designation of croup.

Before Bretonneau's time Home and Cheyne, under the head of Cynanche Trachealis or Croup, confounded infantile laryngitis and infantile tracheal diphtheria under the term croup or cynanche trachealis.

"In 1855 Bretonneau, having discovered that diphtheria was not inflammatory in character, substituted the term *diphtherie* for the original one of diphtherite."—Quain.

The croup of the English writers, like Sir Charles West, Home, Cheyne and others, was an acute inflammatory affection of the larynx and trachea, which, when it ended in a false

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membrane, was called membranous croup. The diphtheria of Bretonneau was always an asthenic disease, with false membranous exudation.

Before Bretonneau croup included many conditions; after him it included one less.

Before Bretonneau the terms diphtheritic and simple croup were not known in medicine. Since Bretonneau, the English physicians began to speak of croup and diphtheria, meaning by the former a simple inflammatory affection of larynx and trachea, and by the latter an asthenic constitutional infectious disease, with false membranous exudate.

Before this differentiation calomel was in rogue in all forms of croup, as it was then understood. After Bretonneau made this differentiation calomel fell into distrust and disuse on theoretical grounds, because it was regarded as a remedy which depraved the blood, and to deprave the blood in the treatment of diphtheria was regarded, and justly, as bad practice.

Bacterio-therapy was not then known, the germicidal power of calomel, save as an intestinal anthelmintic, was not then known, and mercurials went to the wall, and diphtheria wherever it could be separated from simple croup, went usually to the graveyard for lack of that treatment which diphtheria had always received when it was looked upon as a form of inflammatory croup.

Bretonneau undoubtedly showed the identity of diphtheria and what was recognized up to his time as croup, but the English physicians of his time and subsequently, headed by so great an authority as Dr. West, regarded the descriptions of Bretonneau as applicable to a class of cases which they still separated from sthenic inflammatory croup. Since Bretonneau such terms as primary and secondary croup, diphtheria, diphtheritic croup, sthenic croup and angina simplex, angina maligna, asthenic croup, etc., have come into use. Dr. Chas. West believed in the existence of non-diphtheritic membranous croup up to the day of his death.

It was the blending of two essentially different diseases, the one characterized by high inflammation and sthenic conditions, the other by extreme depravity of blood, that Bretonneau's writings differentiated, and though the French apply the term croup to diphtheria of the air-passages, English and American physicians still make a distinction between simple croup and diphtheria; not all, but a large number, in practice.

The differentiation into true and false croup, or diphtheritic and inflammatory croup or laryngo-tracheitis, the foundation of which was laid in the treatise of Bretonneau, followed by the teachings of Trousseau, Sanné, Barthez and other Frenchmen, led to the adoption of a different plan of treatment from that previously in vogue for the mixed affections till then all called croup by English physicians, by which mercury was rejected in true diphtheria to the detriment of the patient, as later experience proves.

There is a sthenic and an asthenic form of croup, the one a local inflammatory affection from the start, the other constitutional *ab initio*. The latter I call diphtheria, the former simple croup. The term croup has not been entirely swallowed up in that of diphtheria, and what Bretonneau described as diphtheria is still regarded as a differentiation from ordinary croup by many physicians in this country.

The expression "differentiation" was used by me in this sense only, and incidentally to illustrate another point. It was used in the sense in which Bretonneau's description was received at the time and subsequently by the English masters of his day.

I regret that I was not more explicit and did not make myself plainly understood.

If I am still regarded as inaccurate, the doctor will please bear in mind that diphtheria is not my special sphere of practice, and extenuate the excepted statement as the inadvertent and casual remark of a *non expert*.

C. H. Hughes.
500 Jefferson Ave.
St. Louis, Jan. 15, 1888.

—A private hospital in a populous neighborhood is a nuisance and must be removed. So decides a California court.—*Amer. Lancet.*

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SELECTIONS.

DECUBITUS.

The Amer. Prac. and News contains the following interesting translation:

The decubitus which the sick adopt may or not have a relation to their disease. In the first case it is called determinate, in the second, indifferent.

The indifferent position, which has a variable character, generally indicates a favorable prognosis.

The determinate position, which has a constant character, embraces the supine decubitus, the ventral, the right lateral, the left lateral, the diagonal, and orthopnea apart from postures partly dependent on certain nervous diseases and some cases of muscular rheumatism, as torticollis, opisthotonos, emprosthotonos, and pleurothotonos, and on alterations of movement which we shall also cite in this chapter.

The supine decubitus, which fat people adopt for convenience, is characteristic of peritonitis, since those who suffer from this affection are not able to endure the least friction on the abdomen, and it is observed also in diseases of acute and grave character, such as tetanus, articular rheumatism, etc. This decubitus takes the name of passive, when the patient, having lost his strength, occupies the lowest part of the couch, the head falls from the pillow of its own weight, the arm, as indeed the whole organism, obeys the action of gravity, as occurs in infectious diseases and intense inflammatory processes. This position is usually accompanied by disordered movements of the hands, as if the patient would reach up to something suspended before the face (carphologia), and also to the inferior extremities, which always indicates a grave condition.

The ventral decubitus is observed in abdominal diseases accompanied by strong nervous pains, gastralgias, flatulent, nervous and nephritic colics, etc., and sometimes in case of anterior pulmonary cavities. In the former affections the patients find relief by compressing the affected region; and in the latter they hinder by this position the escape of the exudate from the cavities through the corresponding bronchial tubes, consequently calming the cough.

According to Barelli, children who suffer from hydrocephalus have a tendency to place the head lower than the body, and therefore when held in the arms they allow the head to fall.

The lateral decubitus, and especially the right, is the most physiological position that the sick can adopt, and it always indicates a satisfactory degree of muscular strength.

In pneumonias children generally rest on the left side, but not so adults, who, if they do not adopt the supine position, present ordinarily the lateral decubitus on the sound side. I believe that this double position in the same disease may be explained by the fact that in children pneumonias are more diffused and affect nearly the whole of a lung and therefore they instinctively avoid compression of the sound lung in order to allow it to perform its function with greater freedom; in adults, on the contrary, the disease is ordinarily limited and there is no inconvenience in adopting lateral decubitus on the sound side; at the same time they avoid in this way increasing the congestion of the affected part, and thereby diminish the pain and cough.

In painful dry pleurisies the patient keeps the affected part still as much as possible, and, according to Dr. Renzi, rests on the sound side, to diminish the congestion of the affected side, which, being elevated, the cough and pain are mitigated; but the period when position becomes marked is during the period of exudation, during which the patient constantly adopts the lateral decubitus on the diseased side, with the object of not compressing the opposite lung and allowing it to perform its function with entire freedom The change then, if an accentuated decubitus, is a sign that a dry pleurisy has become exudative.

In cases of pulmonary cavernous tuberculosis, caseous pneumonia, abscess, patients also sometimes adopt the lateral decubitus on the diseased part in abscess, and the opposite

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in tuberculosis and caseous pneumonia. Professor Renzi explains the variation in the following manner: The cavities of abscesses are occupied by an abundant fluid liquid, which easily penetrates the bronchial tubes when they are elevated, provoking thus by reflex action a troublesome cough, which is diminished by adopting the lateral decubitus on the part affected; the others, on the contrary, contain a limited and adherent exudate, and the walls are inflamed, and consequently may occupy the more elevated position without exciting cough, obtaining thereby a diminution of the parietal inflammation and at the same time avoiding the hyperemia which produces that stubborn cough.

In cardiac palpitation, whatever may be its nature, the sick generally adopt the right lateral decubitus to diminish the free space in which the heart effects its movements, thus diminishing this space and the concomitant painful sensation.

When the liver is the site of large tumors, the patient rests on the right side, and on the left if it is situated in the base; when they exist in any of the other viscera the individual adopts the supine position. In this manner they diminish the compression and the weight inherent to these alterations.

If the stomach is the seat of a circular ulcer, the right decubitus is generally chosen; nevertheless, if the ulcer is in the pylorus, the left decubitus is adopted; if the anterior aspect is the seat, the dorsal, and *vice versa*, the aim being always to avoid the irritation of the injured part by the contents of the stomach.

The diagonal decubitus is a medium position between the supine decubitus and dorsal decubitus, and is commonly observed in exudative pleurisies.

The unstable decubitus is a want of fixed position, a continual change of decubitus, an intense excitation of the nervous system; the head of the patient turns continuously from right to left, the limbs are moved without rest, the trunk is not quiet, and the whole individual is attacked with a general irritability, so that he makes continuous efforts to uncover himself and leave the bed. This phenomenon is usually observed at the acme of acute infectious fevers, in meningitis, acute peri-encephalitis of the vertex, and also precedes at times eruptions of the infectious fevers, crises, and relapses. When it is accompanied by an intense anguish, truly indescribable, it is a grave symptom that precedes by a short time only the agonies of dissolution.

The position in orthopnea is characterized by a general distress, the forward inclination of the trunk, the fixation and elevation of the aams, as if to give the thorax a point of support and to bring into exercise the auxiliary muscles of respiration, and is observed always when an obstacle hinders almost completely the contact of air with the respiratory surfaces, whether this obstacle be in the larynx, the trachea (as foreign bodies, false membranes, cicatrices, or tumors, which act either by stopping up the passages or by compression), or in the bronchia or pulmonary vessels (exudates in capillary bronchitis, pneumonia, tuberculosis, emphysema, or pulmonary compression by exudates and pleuritic transudations, pneumothorax, flatulent dyspepsia, ascites, etc.), in asthma and in cardiac affections, especially in those of the right side, which then depend principally on extravasations in the pulmonary veins.

The more obtuse the angle formed by the trunk and the surface of the bed, the more intense is the orthopnea.

Consumptives are accustomed to remain seated for many hours, with the object of hindering the escape of liquids from cavities through the corresponding bronchia, which provokes cough and simulates in this way a true orthopnea; but a little attention is sufficient to realize that it is false orthopnea.

Orthopnea indicates always a grave prognosis, but it is graver still when, in spite of a notable impairment of the respiratory function it fails, because in this case the sufferer has either lost the consciousness of its presence, or lost strength to the point of inability to sit up. In typhus and putrid bronchitis, says Traube, these grave conditions are ordinarily found united, and hence frequently orthopnea can not be appreciated.

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In tetanus and spinal meningitis the trunk may be curved in any direction. Torticollis is the lateral inclination of the neck either from rheumatism or from muscular retraction.—*Revista Agentina de Ciencias Médicas.*

TRAUMATIC HEMORRHAGE INTO AN OVARIAN CYST FOLLOWED BY PERITONITIS. OPERATION. RECOVERY.

At a meeting of the Obstetrical Society of Philadelphia held Dec. 8, 1887. Dr. B. F. Baer, presented the following interesting report on the above.

I feel warranted in presenting the specimen and relating the history of this case because of its unusual character.

E. D., æt. 45, married, seven children, youngest 7 years; miscarriage two years ago; had always until the present trouble enjoyed good health. In December, 1886, while engaged in rearranging her furniture she lifted one end of a heavy chest. She soon after became conscious of a slight pain in the left ovarian region, but she continued with her usual work. That night, however, she was awakened by a sharp pain in this region, so severe as to cause her to "bend and writhe in agony." The pain extended down the left thigh and to the back, was accompanied with nausea and vomiting, and continued with great severity during the entire night before she obtained any relief whatever. On the next day her entire abdomen had become very tender and swollen (tympanitic), but the severe pain of the night before had subsided.

She gradually recovered from this attack and was about again within two weeks, but she still had occasional attacks of sharp pain and was treated for neuralgia. Soon after this she noticed that her abdomen was larger than usual. She had changed physicians and was treated for "dropsy and worms" by free purgation. This greatly prostrated her, and caused a return of the pain and other symptoms of the first attack.

My friend, Dr. O. K. Adams, was now called, and found the patient in great agony, the pain being most severe in the left ovarian region, but extending over the entire abdomen which was tympanitic. The thighs were flexed and her expression anxious; temperature 103°; on the next day it had risen to 104°. She remained very ill through the next few weeks, after which she gradually improved; when the tympanitic and tenderness had subsided enough to permit of an examination, Dr. Adams discovered a cystic tumor in the lower abdomen which he correctly pronounced ovarian. As soon as she was able to be moved, the patient was sent to me.

On examination with the patient in the dorsal position, I found the abdomen distended by a circumscribed mass which occupied a position between the umbilicus and the pubes, projecting and about the size of the pregnant uterus about the sixth month, though not symmetrical, being to the left of the median line more than to the right. There was reasonance over the entire surface of the abdomen, even over the tumor on light percussion; deep percussion, however, gave a dull note. By palpation the tumor was found to be fixed to the abdominal walls and deeply in the left pelvic region. Vaginal examination showed the uterus to be retroverted, and upon it the lower surface of the abdominal tumor.

To the left of the uterus a nodular mass was felt apparently connected with the lower surface of the tumor; movement of the tumor caused the uterus to move with it. Fluctuation was elicited by bimanual palpation.

I advised immediate removal of the tumor although the patient had not yet fully recovered from the last attack of peritonitis temperature still above 100°, sometimes 101°, in the afternoon. This advice was based upon the recurrent character of the inflammation and its probable traumatic origin, twisting of a pedicle or rupture of a blood vessel. Rupture of an extra-uterine gestation sac had been suspected, although signs of pregnancy had been absent. There had not been suppression of menstruation, but since her first attacks of pain her catamenia had been very profuse, lasting from ten days to two weeks.

Operation March, 15, 1887, incision three

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inches in length in the usual position and the tumor exposed. It was now found that adhesions between the cyst wall and that of the abdomen were so intimate that it was difficult to distinguish which was the cyst and which the peritoneum. I began by separating the tumor from the peritoneal surface hoping to find a place where adhesions did not exist, but in this I was disappointed for the peritoneum was firmly glued to the anterior and lateral surfaces of the cyst wall, while above the intestines and omentum were closely adherent to it. The tumor was now tapped, and a thin serous looking fluid tinged with blood was drained away. The cyst was only partly emptied as it contained a semi-solid material which could not flow through the cannula. Room had, however, been gained so that the dissection could be continued. By a careful manipulation the upper part was separated from the intestine and omentum by amputating the latter, when it was found that the over lateral surface was adherent to the sigmoid flexure, while the base of the tumor, broad-ligament and uterus were so united as to form one mass.

After further dissection the cyst was drawn out and the short thick pedicle examined. This was found to contain masses of thick clotted blood both within and around it.

After further cleansing and examining this nodular mass was found to be the Fallopian tube distended at several points with clotted blood. A temporary ligature was now thrown around the base of the cyst which was then removed. This facilitated the further dissection which was necessary to form a proper pedicle, which was now transfixed and tied and the smaller mass cut away. The right ovary was healthy and was not removed. The abdominal cavity was next thoroughly cleansed, a drainage tube inserted and the incision closed. The patient recovered and went home on the twenty-eight day after the operation, but it cannot be said of her that she recovered "without a bad symptom." She did comparatively well during the first four day, but on the fifth day her temperature increased to 103°, although there was no pain or other symptoms of active inflammation. On the next day it was 104°. The patient now complained of pain at seat of pedicles, and the leg was found to be slightly swollen. The drainage tube was now removed although there was still some discharge through it. The bowels were also moved by a turpentine enema. Her improve after this was slow but sure, and she sat up on the eighteenth day.

Examination of the specimen after its removal showed it to be a thin walled monocyst. It was quite half filled with a fibrinous materiol, a portion of which he presented with the cyst. This was not attached to the cyst wall, and resembled coagulated blood in process of organization. The lining membrane of the cyst was smooth, except at several places where a dilated vein as large as a quill was apparent. The knotted irregular mass which formed the pedicle was the Fallopian tube and broad ligament. Why it was in this condition is difficult to determine, unless it was from twisting of the pedicle; but this could not be fully made out at the operation. The dilated condition of the veins in the cyst and in the pedicle and the evidence of hemorrhage within the cyst cavity as well as around the pedicle, render it probable that rupture of blood vessels from stasis had taken place.—*Maryland Med. Jour.*

PUBLIC HEALTH.

To the Members of the Committee on State Medicine, in the American Medical Association, and others interested in Public Health subjects:

DOCTORS.—As chairman of the committee on State Medicine, and as one greatly interested in sanitary progress, permit me to offer a few suggestions designed to systematize the work of our Section at the next meeting of the Association, in Cincinnati, Ohio, the second Tuesday in May, 1888.

It would be seen that a stronger impulse can be given if, instead of scattering over the entire field of the medical sciences, many of

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us concentrate our efforts upon the same subject.

As the first requisite for the prevention of sickness or of death is a knowledge of the causes of the sickness or of the deaths, and as the causation of disease may be most appropriately studied in an association of physicians, I recommend that an effort be made to contribute for the advancement of our own profession, for the use of non-medical sanitarians, and for the benefit of humanity in general, as much as is practicable of well-systematized facts and considerations bearing upon the "Causation of Disease."

To still further concentrate our energies, I recommend that the special topics for this meeting be "Malaria and the Causation of Fevers." One reason for this is that, even in the northern state in which I live, intermittent fever (though causing few deaths) is reported as causing more sickness than does any other disease whatever.

It would be of interest to know, for each state:

1. The proportion of all sickness which, by reputable practicing physicians, is attributed to malaria.

2. Just what groups of signs and symptoms are accepted as evidence of the influence of malaria.

3. To what extent sickness attributed to malaria is increasing or decreasing.

4. What are the meteorological and other conditions coincident with the increase or decrease of malarial diseases?

5. What facts are there bearing upon the the question—what is malaria?

6. What evidence is there for or against a malarial germ?

Probably it will conduce to the advancement of our knowledge if the member of this committee in each state will collect facts, and, at the coming meeting, report or have some one report for his state, on the topic I have suggested and upon any other subject which he may think important.

Members of the association who are pathologists, physiologists, bacteriologists, or chemists, will, I think, be especially welcomed if each from his own standpoint will discuss that part of the subject relative to the "Causation of Fevors." Statisticians may well give us the evidence which they are liable to bring bearing on the topics suggested; and the busy practitioners who have the best opportunities for observing these diseases, will be expected to contribute their share.

In case you prepare a paper, report, or for a discussion, I trust you will remember to conform to the rules of the association, and be sure to inform the Secretary of the Section, S. T. Armstrong, M. D., Marine Hospital Service, New York City, concerning the title, and the time required, in order that the program may provide for its presentation.

It will give me pleasure to hear from you on the subject. Very respectfully,

HENRY B. BAKER,

Chairman of Section on State Medicine, American Medical Association.

LANSING, MICH., December, 1887.

PROFESSR FAUVEL ON THE VIN MARIANI.

13, RUE GUENEGAUD, PARIS, December 8, 1887.

To the Editor of the New York Medical Journal.—Sir: Will you kindly have it announced in your Journal, in justice to myself before the medical profession, that the various notices appearing in journals and circulars quoting my name in conection with coca are entirely false and in every respect a prevarication. The only preparation of coca employed by me with undoubted and uniform success has been those well-known *vin Mariani*, which, since 1865, I have had occasion to prescribe daily in my *clinique*, as well as in private practice. My opinion of this valuable medicament, together with those of many of my *confréres*, has during many years been frequently made known for the benefit of the profession in various writings, and it is but just to this worthy preparation that it receive all honor due. I thank you for compliance with my request CH. FAUVEL.

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WANTED—A DEPARTMENT OF HEALTH.—The calling of a convention to meet in Washington on January 19 to discuss the subject of food adulterationis another reminder that this country has existed long enough without a Department of Health. It has been and is proposed by some to establish a Bureau of Adulterations, at an expense of not more than $50,000 for the first year. By others it is proposed to turn the business of looking up and preventing food adulteration over to the Internal Revenue Department, in case the tobacco tax be repealed. We have a law respecting the adulteration of tea, and have official inspectors of tea under the Treasury Department. The amount of good work that is not done by these official inspectors is shown by the amount of adulterated tea that gains admission to the country every year, to be consumed or detected and thrown out by local boards of health. The proposition to place the Internal Revenue Department in charge of food adulterations in case of a repeal of the tobacco tax, presupposes something that is exceedingly improbable and for which there is no good reason, and assumes that men whose duty has heretofore been to see that all tobacco was properly taxed will be capable at once of taking hold of the enormous question of adulterations of food.

There is no good reason for suggesting that a special department of public health should be buried in a department of the Government that is entirely foreign to the whole matter, or for thinking that the public health of this country can be properly attended to by two or three scattered bureaus in dissimilar Departments of the Government. Few will deny that this country has as much need of a Department of Health as a Department of the Navy. Certainly there is a more pressing need of having some form of administration that will keep cholera, yellow fever and other diseases out of the country than of repelling hostile invaders. Our Navy, such as it is, is kept for possible future emergencies; we need a Public Health Department for pressing persent necessities and dangers. The country has been and is too often placed in jeopardy by the carelessness of irresponsible State Boards of Health, ignorant commissioners and so-called experts. The inland states have repeatedly suffered from outbreaks of preventable diseases, on account of the gross carelessness of the health officers of the coast states; this would be obviated by a Government Health Department. The coast states have been placed in peril by diseased food from the inland states; this could be obviated. When a manufacturer of impure food-stuffs is prevented from selling his adulterated articles in one state he can still sell them in states in which there is no stringent law or supervision; this could be obviated. As the matter now stands one state may quarantine or detain against cholera or yellow fever a sufficient length of time, while the health officers of the adjoining state make insufficient quarantine or detention, thus practically destroying the efficiency of the health regulation of the first state; this could be obviated by a Department of Public Health. One state has regulations in regard to the heating and lighting of railway cars, and their sanitary conditions, while three or four other states, through which the same railway may pass, utterly disregard such matters. The matter of vital statistics is alone large enough to require a special bureau, as is also the matter of construction, ventilation, and drainage of buildings.

There is no ground for fear that a Department of Public Health, once established in this country, will be long idle for the want of something to do.—*Journal Am. Med. Asso.*

LOBAR ARRANGEMENT OF PHTHISICAL LESIONS.—An examination of the literature of pulmonary phthisis will show how little attention has been paid by most writers to the question of the exact distribution of the lesions in the lungs and their relation to the chest wall. Dr. Kingston Fowler has gathered together some facts of importance, and in the *Practitioner* gives us the outcome of his own experience. He believes that there is a definite mode of extension of the lesions of phthisis through the lungs, and has found

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great assistance in the diagnosis and valuable aid in the prognosis from a recognition of this fact. We agree with Dr. Fowler in thinking that there probably is in most cases of phthisis a distinct "line of march." The extreme apex of the lung is not often the site of the primary lesion; it is situated from an inch to an inch and a half below the top, and rather nearer to the posterior and external borders. Lesions in this region tend to spread in the first instance backwards, possibly from inhalation of the virus whilst the patient is lying down. This accounts for the fact that an examination of the supra-spinous fossa will often give certaut evidence of the presence of disease when the physical signs in front of the chest have left some doubt. From this primary focus, which in front corresponds either to the supra-clavicular fossa or to a spot immediately below the centre of the clavicle, the lesions often first spread downwards along the anterior aspect of the upper lobe, about three-fourths of an inch within its margin, frequently occurring in scattered nodules, separated by an inch or more of healthy tissue. The second and less usual site of the primary affection of the apex corresponds on the chest wall with the first and second interspaces below the outer third of the clavicle. The lines of extension are usually downwards and backwards. The lower lobe of the lung primarily diseased is usually affected at a very early period. The site of the primary infiltration of the lower lobe is generally situated about an inch below the upper and posterior extremity of the apex of the lower lobe, and this situation corresponds on the chest wall to a spot opposite the fifth dorsal spine midway between the border of the scapula and the spinous processes.—*London Lancet.*

A QUESTION IN ETHICS.—*Dear Sir*:—A point in ethics: How is the action in ethics of the Secretary of a State Medical Association in accord in ethics with the National Association, who, as a member of the Board of Censors of a District Medical Association, recommends an M. D., for membership in said District Association, when said Secretary knows the M. D., recommended, and elected on his recommendation, stands at that time suspended from the State Medical Association on charges preferred and sustained?

ENQUIRER.

[*Answer*: We do not know any provision in the National Code of Ethics on which an answer to "Enquirer" could be based. The Code of Ethics is designed to define clearly the relations and duties of individual members of the profession with each other, with their patients, and with the community at large. But the mutual relations of organized medical societies, County, District, State and National, must be regulated by the constitutions and by-laws that they severally adopt. For illustration: by the constitution and by-laws of the American Medical Association, no member of the profession can be received as a member who is not in good standing in the local society where he resides, if such a society exists; and if any member is regularly tried and suspended or expelled from the local society of which he had been a member, his name is dropped from the roll of members of the National Association, and remains so as long as he continues suspended or excluded from his local society. The by-laws of many of the State Medical Societies establish the same relation between the State and the County and District Societies of their respective States. If the National and State Associations thus pay due respect to the judicial and ethical decisions of the more local societies, it would certainly apear highly proper and important that the local societies should treat with equal respect the judicial acts of the State and National organizations. —EDITOR.]—*Journal Am. Med. Association.*

ANTIPYRINE IN NEURALGIC HEADACHE.—Dr. R. R. BALL, Assistant Surgeon, U. S. Army, of Fort Riley, Kan., reports the following case: "A few days ago I has occasion to use antipyrine in the case of Miss K.F——, a young lady who, for several years, has been subject to violent neuralgic headaches. She had never gotten relief from anything she had tried. I gave her ten grains of anti-

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pyrine, directing her if pain continued, to repeat this dose in half an hour. Fortunately for me, idiosyncrasy stepped in to prevent my direction being obeyed. In about five minutes after taking the ten grains she turned deathly pale, experiencing complete loss of strength, with violent palpitation of the heart and slight nausea. She immediately took to the bed, and summoned a physician. A few minutes later a peculiar and intense itching and burning of the fauces, of the conjunctiva, and of the lining membrane of the nose and middle ear occurred, making her feel, as she expressed it, that if she could scratch the inner membrane of her throat out she would be relieved. This condition was rapidly followed by intense burning and itching of the skin on the upper portion of the body, running on into fully developed urticaria No emetics were used, as some time had elapsed before she was seen. Half an ounce of brandy had been given, and in about two hours with perfect rest in bed, the untoward symptoms passed off. In this case, as in many others, the headache was completely relieved —though I had never met such idiosyncrasy before. I can only account for the symptoms on the supposition of an idiosyncrasy, which is strengthened by the fact, as I learn, that her mother has been so affected by other things. She is also unable to eat strawberries and some other fruits. Perhaps it would be well if we always inquired more fully into the peculiarities of families. Certainly, I shall, in future, regarding antipyrine."—*Medical Record.*

Antipyrine in Obstetric Practice.—Dr. Charles Milne, of this city, writes: "Referring to the letter of Dr. Hays, in a recent issue of *The Medical Record*, on the use of antipyrine and antifebrine as hypnotics, permit me to say that I have been in the habit of using the former for the past six months not only as a soporific but as an anodyne, and I now use it almost exclusively, instead of opium or its alkaloids, to relieve pain and produce sleep, chiefly for the reason that it produces refreshing sleep, and alleviates suffering without producing any unpleasant after effects. I find it especially useful in cases of wakefulness due to over-fatigue, or exhaustion following cases of protracted labor. It is also, I find, an excellent remedy for after-pains. I usually give it in doses of fifteen to twenty grains, and repeat in two hours if necessary, but the first dose nearly always produces the desired result. My experience with antifebrine has been too limited to enable me to express any opinion as to its merits in similar cases."—*Medical Record.*

Comparative Mortality in England and in America.—The imperfect system of registration of vital statistics in America prevents the possibility of a useful comparison between the rates of mortality in England and in America. The rapid growth of life assurance in the United States has accumulated, however, a mass of statistics of mortality of still greater value for estimating the duration of life in that country than the results of any system of civil registration of births and deaths yet existing. During the thirteen years 1859 72, the number of the policies existing in the United States increased from 50,000 to 800,000. After 1872 the number of policies remained comparatively stationary for some years, but more recently the number has probably again increased rapidly. Fortunately for the present purpose—a comparison of the value of life ih England and in America—a valuable series of experience tables, based on the life and mortality statistics of thirty American life assurance offices, was published a few years ago. The basis of experience upon which these American tables are constructed is sufficiently large to give the results a very definite value. The tables dealt with more than a million of policies existing at the end of 1874, as well as nearly 50,000 previously lapsed by death, and nearly an equal number that had lapsed by surrender or discontinuance of premium—in all, with more than 600,000 policies, covering considerably more than 4,000,000 of years of life under observation. Among the more interesting results shown by these tables, it may be noted

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that the expectation of life of insured males in America at twenty years of age is 42.1 years, and exceeds by one year the expectation of males in England by the English experience tables; this excess in the male expec tation of life in America is maintained through life, although it steadily decreases, until the advanced age of eighty-four, when the difference in favor of American life disappears. With regard to female life, expectation of life at the age of twenty is precisely the same (40.8), both by the American and English experience tables; but afterward, and until the age of forty-seven, the American expectation somewhat exceeds the expectation according to the English tables, while after the age of forty-seven the difference is in favor of English life, increasing to a year at eighty years of age. One other marked feature disclosed by a comparison of these American andEnglish experience tables is that in America expectation of life among insured females is lower than among insured males after the age of fifty-three years, while it is identical with that of males. It is well known that by all the principal English tables expectation of life among females exceeds that among males after the age of thirty-five years, and shows an increasing excess to the end of life. These differences between the expectation of life in America and in England relate, it should be remembered, solely to insured lives, mainly belonging to the middle and upper classes. If similar statistics were available for the general population, very much wider differences between the mean duration of life in American and in England would probably be show.—*London Lancet.*

Strange Incident at Cordova.—Last week Dr. Middleton, of Scarborough, who was on his way to Tangier, halted with his companions at Cordova. Leaving his fellow-travelers at the hotel, Dr. Middleton, accompanied as a guide by a gipsy, visited the cathedral, than which there are few more attractive buildings in the world, for when Cordova was the capital of the Moorish realm in Spain it was the great mosque of the city. He had begun to descend the narrow winding staircase of the tower, followed by the gipsy, when suddenly the latter attacked himfrom behind, nearly strangling him with one arm, while with the other hand he took two dollars from his intended victim's pocket and wrenched his walking stick away. Dr. Middleton then drew his revolver and fired two shots over his shoulder, one of which entered the gipsy's mouth, the other taking a downward course through his body. The shots were fatal, and covered with blood, Dr. Middleton descended and gave notice of the occurrence to the police, who, on their arrival at the scene of the tragedy, found the dead thief still holding in his hand the stick and the dollars. Dr. Middleton was arrested, but has since been released on bail. The gipsy had, it appears, the worst of reputations, and a most significant fact is that he was companion, two years ago, to an Englishman visiting the cathedral tower, who was found dead at its foot. The case was then supposed to be one of suicide, but, looked at in the light of Middleton's experience, it is now viewed differently.—*The Lancet.*

The Position as Medicine Man to a band of Indians at Bay Center, on Shoalwater Bay, in Oregon, is about being vacated, and a competitive examination was at last accounts being held for a successor. The examination was unique and in accordance with the laws of the tribe, which provides that the candidate who dances for one week, night and day, without giving out, and succeeds in the mean time in finding some object which has been previously hidden, is chosen. He is forthwith declared the medicine man, and the "healing business" is turned over to him. When last heard from, the candidates had been tripping for four days, and several were exhausted.—*Phila. Ledger.*

—The *American Lancet* says: It is claimed that in Cincinnati, a doctor in a close carriage can persuade people that he knows much more than a doctor on foot.

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BY GEO. F. HULBERT, M. D.

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MYXOMATOUS DEGENERATION OF CHORION.

In the *Quar. Compend of Med. Science*, Drs. J. Halliday Croom and J. H. Smith report in a paper, read before the Edinburgh Obstetrical Society, Jan. 8, '87, a case of this character, in which the severity of the symptoms attending the pregnancy, the serious hemorrhage which occurred, and the prompt interference by transfusion of eight ounces of blood with the happy result demands record and attention. The case record is as follows:

"Janet Davis, 26 years of age, was admitted to the hospital January 8, 1887, suffering from hematemesis and exhaustion. Hematemesis to a greater or less extent had existed for six weeks. She menstruated last in the end of September, 1886; since then she has had irregular uterine hemorrhages, which culminated in the middle of December in a very profuse flooding. From then till January she had been bleeding constantly. She was quite exsanguine, very weak, pulse thready, and vomited so intensely that she was unable to retain anything, either fluid or solid.

On examining the abdomen there was found to be a well-marked tumor occupying the middle line, extending to three fingers' breadth above the umbilicus. The mammæ presented all the usual indications of pregnancy, and the umbilicus was pigmented. The consistence of the swelling was elastic and movable.

Percussion was dull, and a well-marked souffle heard all over the tumor.

An examination by the vagina showed the os to be soft and patulous, and bi-manual examination showed a boggy soft tumor with well-marked vaginal pulsation. The least examination caused much pain and great hemorrhage. From the unusual size of the pregnant uterus, the hemorrhage, the loud bruit all over, and the consistence of the tumor, with the absence of fetal parts, the diagnosis arrived at was a vesicular mole.

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The vomiting increased in severity, and the hematemesis became very urgent. It was therefore determined to bring on labor as quickly as possible and empty the uterus. With this object a tupelo tent was introduced in the afternoon and a firm plug beneath it. On the following day the tent was removed, accompanied by very profuse hemorrhage, the cervix being only slightly dilated. The pulse of the potient was uncountable. She was sighing, gasping and restless, with all the other ordinary signs of approaching death from hemorrhage. The vagina was therefore plugged, copious ether and brandy injections were administered, and the patient left in the operating room. Her condition was so critical it was deemed unsafe to move her in any way. On the evening of January 16, her condition being if anything rather worse, it was determined as a *dernier ressort*, to try transfusion, and eight ounces of blood were introduced into her circulation by the following method:

The operation was performed according to the manner recently recommended by Mr. John Duncan. Mr. J. W. Mitchell furnished the blood. The median basilic vein of the left arm having been chosen as being most prominent, it was exposed for about an inch of its course. Two ligatures of carbolized catgut were then passed under the vein with an aneurism needle, and tied in a loose knot, leaving the vein uncompressed. The vein having been then opened in the interval between the two ligatures, a glass cannula, two inches in length, with an inch of rubber tubing at its free end, was immediately slipped into the opening and pushed for about an inch into the vessel. The proximal ligature was then tightened over the tube in the vein so as to keep it in position, the lower ligature being also drawn tight, occluding the distal portion of the vein. The end of the cannula was now clamped.

The blood of Mr. Mitchell was received into a graduated glass vessel containing a little of the phosphate solution, and floating in a larger vessel of hot water kept a little above the body temperature. As the blood flowed into the vessel, phosphate solution at a temperature of 100° F. was slowly added, and the mixture gently stirred with a glass rod. A large glass syringe holding three or four ounces, previously warmed and folded round with hot flannel, was then filled with the mixture and any bubbles of air carefully excluded.

The clamp being now removed from the vein of the patient, and the blood allowed to fill the canula, the nozzle of the syringe was slipped into the end of the rubber tube of the canula, and the blood injected very slowly and steadily into the vein. When the syringe was emptied, the end of the canula being nipped, it was withdrawn and replaced by a second syringe already filled. The introduction of the blood would take upwards of ten minutes. Eight ounces of the mixture were injected, containing 5½ ounces of blood and 2½ ounces of phosphate solution.

The canula was then withdrawn from the vein, and the ligature which had held it in position tightened, and the wound in the skin having been sutured, a pad of corrosive sublimate wool was applied.

The phosphate of soda solution which was used was prepared by boiling one pint of distilled water on three occasions at intervals of twenty-four hours. To this one ounce of phosphate of soda in large crystals, which had been kept dry in a stoppered bottle, was added just before the solution was needed, dissolving quite readily at the body temperature. The solution was kept at the proper temperature at the time of operation by a thermometer introduced into the flask. The phosphate solution is thus 1 in 20 of water. One part of the solution to three of blood will prevent coagulation for some time, and this is the proportion recommended, but more of the phosphate solution in proportion may be added if it is thought advisable.

Before being used, the syringe, vessels, glass rod, etc., should be immersed in corrosive sublimate lotion for some time and then washed out with hot boiled water. To insure perfect safety the dissection of the patient's vein should also be performed with all antiseptic precautions.

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On the following day there was well-marked jaundice; the patient had still a very rapid pulse, but was somewhat improved. Ether was administered, the plug removed, the cervix dilated with the hand, and the uterus forcibly cleared out. The contents consisted of the characteristic cysts, with copious blood-stained fluid and blood clot, to the extent of an ordinary hand wash basin.

Profuse intra uterine hemorrhage, controlled at first by direct appplication of antiseptic hot douche and secondly by perchloride of iron. It was then found that bleeding was persisting from torn cervix, controlled by firm vaginal plugging. Patient removed to ward almost in articulo mortis. Next morn, Jan. 18, the jaundice had faded and condition generally improved. Antiseptic intra-uterine douches were persistently employed and recovery was completed the beginning of Feb.

The points of interest as presented by the reporters are as follows:

"1. The method of transfusion an easy and ready one which can be utilized. 2. Demonstrates the immediate value of an increased volume in the circulating fluid."

The only exception that can be taken in the above is to the source of the liquid to be used. It is not the rule for a person to be found who is willing to furnish blood.

From the facts in our possession the second point mentioned by the authors is practically all that is accomplished by transfusion, namely increase in volume, that determines the fact as to whether the operation will save life. It is a dernier ressort and the matter of stimulation by any nutrient from the liquid ingested is not and cannot be considered as of the most importance. Such being our understanding it would seem that the saline sol. or as recently reported by Lauderer, alkaline salt sugar solution would be preferable. The advantages claimed by Lauderer for his substitute for blood are: (1) That the fluid constituents of the tissues are energetically attracted to the blood. (2) That the blood tension is essentially increased; the important factor. (3) The addition of an easily assimiated nutritive substance, namely sugar. With this solution he has demonstrated that animals after a blood loss of 5.5 per cent. (Schramm has shown that a blood loss of 5.5 per cent. is almost invariably fatal) would recover, which is strong proof of its great value.

Kronlein has confirmed Lauderer's views. Conheim who worked with Lauderer in this direction strongly advocates that the infusion be made in the proximal end of a distal artery, preferably the radial. His reasons are, that the artery is more readily found; the blood current in the artery diminishes the danger of a sudden overpowering of the heart; the danger from air embolism is avoided and the opportunity for gangrene induced by rupture of distal arterioles during spasm to resist a foreign fluid is absent.

In the salt sugar solution we have the advantage of the sugar which seems from the experiments to perpetuate the transitory effects of the ordinary salt solution, which is only a question of volume.

As regards the amount infused there is very little difference between the two and is rationally determined by the amount lost. This may vary from 4 to 6 per cent of the total blood quantity and demands trans- or infusion. Approximately this is in the proportion to weight of the body of 1:8,or according to Weber, a man of 132.7 pounds weight will have 16.59 pounds of blood. Carmichael estimates 1:4 pints; Schwartz, 18 ounces. Practically we can fall back on the experience of the days of Phlebotomy estimate the quantity; bearing in mind that the full amount lost is not necessary and unless the method of Conheim is employed is persistently dangerous.

Precocious Menstruation and Early Pregnancy.

Dr. O. C. Boyden, of Bridgeport, Vermont, writes as follows in the *Mass. Med. Jour.* Oct. 1887.

The first case had neopause at nine years and five months, flow continuing for five days. The girl had a youthful face and mind but in all other respects was far advanced to-

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ward womanhood, five ft. one inch high, well developed mammæ, rounded limbs, full pelvis, hair on pubes, weight ninety pounds, environment quiet, education at home. Second case: Large overgrown, plethoric girl, neopause at eleven years and nine months, five feet one inch and a half tall, weight, one hundred and six pounds. The attack was menorrhagia, due no doubt to a long hot summer acting on a plethoric habit. There was nothing womanly in the girl's configuration.

Third case: Small girl, neopause at twelve and a half years, four feet eight inches high, very narrow frame, weight seventy-two pounds. Two and a half years elapsed before characteristic appearances of womanhood developed.

The parents of all these children present nothing beyond the ordinary physical habit of medium stature. They all have sisters older and larger who have not as yet given any evidences of menstruating.

"Precocious menstruation may be divided into two varieties: 1st. That which occurs during infancy, or the first seven years of life. 2d. That which appears at a later period of childhood, but is still anterior to the ordinary age of puberty; *i. e.*, from seven years of age to thirteen, the latter being an early period, but not markedly precocious, because in this climate even, from one-eighth to one-sixth of the girls menstruate before they reach fourteen.

Infantile menstruation is by no means so rare as any one might be led to suppose who had not examined the records found in large medical libraries. *True* menstruation, confirmed in character by all the necessary evidences of approaching puberty, has been so often met with and reported upon, that a large number of authenticated cases might be collected from the journals of Europe and the United States.

In the infantile cases, the attention of the mother or nurse is generally attracted by the womanly development of the child before there is any appearance of the menses. Children have been born with the marks of puberty upon them, or have rapidly acquired them at an early age. Somé, it is true, have menstruated without having these evidences, but such are an exception to the general rule, are generally irregular, have the symptoms of cachexia, and fall victims to some wasting disease. But in the great majority of cases of infantile menstruation, precocious puberty is undoubtedly present, and the whole system is in correspondence with it, so that the function does not, in its performance, interfere with the growth or health of the subject. From an examination of numerous reported cases of infantile puberty, Dr. Boyden has drawn the following conclusions:

1. With very rare exceptions, no matter how young the infant may be in whom the menses have made their first appearance, the mammæ are found unusually developed, and the pubes shaded with hair.

2. The subjects have, in almost all instances, menstruated regularly, grown rapidly and vigorously, been somewhat inclined to obesity and have not presented any signs of weakness resulting from the menstrual loss.

3. This form of precocity appears to be little, if at all, dependent upon any climatic influence; the latter variety is undoubtedly accelerated by heat.

4. The maturity of the uterine system is generally independent of any marked precocity of development in the mental faculties.

5. Sexual passion, so general with precociously developed male infants, is seldom a marked characteristic in females of corresponding years.

6. The first appearance of the menses is more common during the first, second, and third years of infantile life, than it is in the fourth, fifth, and sixth.

7. Infantile puberty is more common in the female than in the male sex, although in the latter there are cases which are quite as remarkable as any in the former.

What the age of nubility may be in these subjects, can only be conjectured, as but few observers have followed up their cases, and reported the ages at which they subsequently

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became mothers. In the case related by Dr. Rowlett, of Kentucky, some years ago, the child menstruated at one year, was regular thereafter, and gave birth to an infant weighing seven and three-quarters pounds, at the age of ten years and thirteen days, at which time the mother measured four feet seven inches in height, and weighed one hundred pounds.

In Schmidt's case, reported in 1779, the menses appeared at two years, and the child gave birth to a dead fetus when eight years and ten months old, which was thought by its development to have reached to full term. The appearance of the mammæ and pubes of the mother were said to resemble those of a girl of seventeen. Sir Astley Cooper gives a very remarkable instance. The girl commenced to menstruate when three years old, and was last noticed by him in his report when seven years and five months old, at which early age she had all the appearances of a thick-set stunted woman, so that she was a noticed object when in the street. She measured four feet one inch high, and had so large a pelvis that she could no doubt have given birth to a fetus. Le Beau's case also menstruated for the first time when three, and was so large and well developed by the age of eight that she regarded her capable of bearing a child at that period.

Among cases of early pregnancy in subjects not menstruating during the period of infancy, may be mentioned one reported in the *Boston Medical and Surgical Journal* a number of years ago. The young mother was born of native parents in some one of the charitable institutions of this state, the record of which proved her to have been ten years, eight months and seven days old at the time she was herself delivered of a male infant weighing eight pounds. It was subsequently found that she had menstruated once or twice prior to impregnation, and that the father was a boy of sixteen. Notwithstanding the youth of the mother, her child grew vigorously, so that at the age of three years and two months he measured three feet five inches, and weighed forty-six pounds.

Dr. Boyden says he has not met with any well authenticated record of birth having taken place in England prior to the age of twelve years. Thorpe delivered a girl a few months over twelve (exact age not given) of a full grown but still-born fetus. "Her figure was that of a well grown young woman, with fully developed mammæ."

We have in our records one case of infantile menstruation, in which the menses appeared five days after birth. The characteristic signs of menstruation were carefully observed; the flow lasted three days, moderate in quantity. The mammæ and general configuration of the infant were a beautiful picture of womanly development. After the second appearance of the flow the mother left the hospital, and I have not since seen or heard of the case. There was a history of tuberculosis in the family of the mother. I have met several cases of precocious menstruation in which the same history was present.

Liquor Amnii as a Means of Nutrition of the Ovum.

Dr. Ahlfeld (Marburg) presented a paper, entitled, "Does the Liquor Amnii Contribute to the Nutrition of the Ovum", to the Germ. Gyn. Society, at Wiesbaden, Sept. 1887, of which the following is an abstract.

In order to answer this question, it must be demonstrated (1) that some of the liquor amnii passes into the intestinal canal of the fetus by being swallowed; (2) that it contains nutrient substances, and (3) that the latter are absorbed. It is well known that the meconium contains a large quantity of vernix caseosa and very numerous downy hairs, the abundance of which was clearly shown by the author on glass plates, on which diluted meconium had been poured and dried. The lanugo there present is evidence of the enormous masses of liquor amnii swallowed by the fetus and, as it is no longer present in the intestines, it must have been digested. The author had formerly shown by his investigations that the liquor amnii contains a large quantity of albumen, and submitted the re-

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sults of nineteen recent examinations of liquor amnii made during the past year. The material was obtained by puncture from bags of water projecting into the external genitals and the albnmin precipitated. These large amounts of albumin obtained from liquor amnii are sufficient, in the author's opinion, to justify the assumption that the liquor amnii which passes in such large quantities into the intestines indeed contribute to nutrition.

The second part of the author's deductions covers experiments intended to prove the occurrence of swallowing motions in utero. The new-born infant not rarely places at once a finger into its mouth and sucks. Sometimes,at birth,both hands andfingers show plain indications of intrauterine sucking. The author some time ago demonstrated nearly rhythmical series of spasmodic movements of the fetus which, during the day, recur periodically, and had interpreted them as acts of swallowing. (Transactions of the Gesellschaft zur Foerderung derges. Naturw, zu Marburg, 1884). Reubold recently had concurred in this interpretation.

Of late the author had demonstrated these movements graphically by means of funnels set upon the abdomen of pregnant women, and Marey's drum (the graphic tracings were exhibited), and at the same time had been able to record fetal movements which might possibly be interpreted as acts of sucking. The former movements (supposed acts of swallowing) appear as short elevations, recurring pretty regularly twenty to thirty times in a minute for the space of a few minutes, and then usually cease for a long time. The second form of movement shows on the curve almost rhythmical elevations, which recur from fifty to sixty times in a minute. That these movements are acts of sucking is, of course, an assumption based on a slight foundation. The author has been led to venture this supposition on the single fact, new-born infants when sucking their fingers during sleep make about equally rapid,approximately rhythmical movements. It will depend on further iuvestigations in this direction as to what other importance will be accorded to the liquor amnii in the physiology of the fetu

The Treatment of Retained Chorio

The question which Reihlen aims at a swering in this paper is as to whether in ca of retention of the chorion it should be r moved or left to the powers of nature. H utilizes for this purpose 3,534 labors occu ring in the Stuttgart maternity during 187 to 1886. In this interval, there were 152 i stances of retained chorion, or 4.3 per cent o the total number of labors; and in 104 remo val was resorted to; in 48 there was no inte ference. The size of the portion of retaine chorion did not appear to have any specia influence on the course of the puerperium The following are the statistics in case of ex pectancy and of artificial removal.

Expectant treatment (104 cases); In 59 pe cent, normal puerperium; in 27 per cent slight absorptive fever; in 14 per cent, seriou complications during the puerperium, on death.

Active treatment, 48 cases: In 41 per cent, normal puerperium; in 46 per cent slight ab sorptive fevers; in 13 per cent serious compli tions, one death.

Of the two deaths, in one the remnant of th chorion was removed after delivery, but th temperature rose at once, and the patient die on the tenth day of peritonitis; in the othe the remnant was not interfered with, the pa tient died of sepsis complicated with erysipe las, and the retained portion of chorion wa considered a predisposing cause. It is furthe to be noted that in 15 of the 48 instance where active treatment was instituted it wa either only partially, or else not at all poss ble to complete removal. Of this number only 3, 20 per cent, had a normal puerperium in 10 there occurred septic fever; in 1 a slig and in 1 a severe septic endometritis. It questionable if in these cases the necessar repeated insertion of the hand into the ute rus was not rather the cause of the fever tha the retained remnant of the chorion. Th general conclusions reached by R. from hi analysis are: From the standpoint of th

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prevention of fever in the puerperium, the expectant treatment is preferable. Involution is somewhat slower after the expectant than after the active treatment. After active treatment there were more complications during the puerperium—the result possibly of the fact that pathogenetic organisms were carried by the finger, from the vagina into the uterus.

The above extract is worthy of attention from the fact that it, on the surface, would seem to sustain the "non-interference" plan of treating retained chorion. From the standpoint of septic infection, certainly "non-interference" has the advantage in the series of cases observed. Considered from the interference anti-septic position there are several vulnerable points, and vastly important too, which calls for either a further explanation or protest.

The above results are not at all in accord with the experience of skilled antiseptic interference on this continent. Active treatment ought to present a percentage of recovery without any complications of 100; but here we only find 41 per cent.

The fact that under the expectant plan there was only 59 per cent of normal puerperium ought to demand some other plan and also establish the fact that the environment was a dangerous one.

If the autogenetic delusion of septic infection is discarded, this opinion is the more firmly established. Certain it is under the ordinary surroundings which prevail either in domestic or institutional life, the expectant plan, has and is always followed by a more or less percentage of complications.

It is necessary then, in order to justify the active or interference plan that it present a percentage of normal puerperium which should closely or fully approach 100 per cent. In order that this be done many things are an absolute necessity, and in fairness must be employed.

As far as we are concerned, the only and safe plan is the active, properly executed.

A study of the above report only too plainly tells of some thing wrong, and the conclusion, in the light of modern experience and facts, is that infection was carried by the manner in which the methods were executed, or the environment of the patient.

The Management and Treatment of Umbilical Hernia.

Mr. C. B. Keetley, senior surgeon to the West London Hospital, writing on this subject in the *Annals of Surgery*, September, 1887, says: Almost all umbilical herniæ make their first appearance either in earliest infancy or late in middle life.

A small minority of the umbilical herniæ seen in infants are herniæ into the stump of the umbilical cord, and are truly congenital; but the majority are not discovered by their parents until a week or two after birth, and therefore when the stump of the cord has withered up and left only the navel. But even this class of cases depend on a congenital defect. The aponeurotic layer of the abdominal wall must have been deficient. The ventral laminæ have probably failed to unite completely at this part of the length of the linea alba. Although this failure takes place close to the navel in the vast majority of cases, yet it sometimes occurs much higher or even lower.

This paper will confine itself entirely to the common form of umbilical herniæ. Its diagnosis is obvious. Its prognosis and treatment depend on each other.

When a student, Mr. Keetley was always taught that in male infants there is such a tendency to spontaneous recovery that a truss or belt and pad are superfluous, and, moreover, that there is a tendency to inguinal hernia which is liable to be increased by the use of any appliance pressing on the umbilicus.

Therefore the teaching then was to leave umbilical herniæ of male infants to nature. On the other hand, female infants were to be treated with a truss or belt and pad. He was also assured that, unless this pad was perfectly flat, it would enter the umbilical hernial opening and increase the size of it.

While all this sounds very reasonable and

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likely, it is suspected that it may after all, be merely specious, and based not on experience but only on *a priori* considerations.

As a rule rather than as the exception, he has found that where both umbilical and inguinal herniæ occurred in the same infant, the inguinal had preceded the umbilical; and generally both had appeared before any form of truss had been applied to either.

Moreover, in female as well as in male children, there is a great tendency to spontaneous recovery. He is not, therefore, inclined to take sex seriously into consideration in deciding on the question of a truss or belt, but rather gives heed to the presence or absence of signs of digestive disturbance and abdominal pain and discomfort. These are often associated with umbilical herniæ in childhood, and the surgeon can scarcely ignore them even if he would.

With regard to the shape of the pad, almost all those supplied by instrument makers are rounded rather than flat. He has never seen such enlarge the hernial aperture. As a matter of fact they seldom, if ever, press into it. When the child sits up or stands, the contents of the rupture tend to press the pad away from the opening. When the child lies down the pressure of the truss is relaxed by the position, unless the belt or spring is so tight as to be uncomfortable. Most trusses are tighter when the patient is upright than when he is horizontal. He does not defend distinctly conical pads, but merely such as are gently rounded. A point really of the first importance is to keep the pad in its correct place immediately over the ring. To do this, good strapping is generally necessary, even though the pad be attached to an elastic belt.

Is there ever justification for operating on children with umbilical hernia in order to obtain radical cure? Not generally, but sometimes undoubtedly. In some of these cases the hernial aperture is so large that one can scarcely hope to see spontaneous cure ever take place, and the history may make it clear that the rupture has been getting worse rather than better, perhaps for years, for sometimes, although the rupture is congenital, the patient is an adolescent. Recently Mr. Keetley saw such a case, and will probably operate on it. The patient was subject to attacks of colic and vomiting, which she herself and her friends attribute to the rupture. Mr. Keetley is satisfied that her hernia can be cured radically and with safety; and considering her sex, the probability that she will marry some day, become pregnant, perhaps grow fat, while the rupture may increase to a dangerous as well as vexatious and distressing trouble—all these considerations impelled him to recommend an operation.

How should one operate on umbilical hernia of infants? It is seldom necessary to open the sac or the peritoneal cavity, and still less necessary to excise the sac. This is a consideration of first-class importance, calculated to go far to remove prejudice against and fear of the operation. He has shown at the West London Medico-Chirurgical Society, two infants in whom (at the West London Hospital on March 2, 1885, and March 11, 1886, respectively) he invaginated the sac, refreshed the edges of the hernial aperture and brought them together, in one case with catgut sutures, in the other with a hare-lip pin. In the former he also painted a concentrated decoction of oak bark over the sac, ring and neighbor hood, to excite a plastic effusion and reaction. Both cases were thoroughly successful. One was a very large hernia indeed. Both children ceased to suffer from abdominal pains and troubles, to which they had been previously subject.

In the case of two other children also treated in the West London Hospital, and operated on October 6, 1886, and January 31, 1887, respectively, he has tried a new plan, based on Macewen's operation for inguinal hernia. Instead of simply invaginating the sac and pushing it straight back into the abdominal cavity (merely turned inside out and unopened of course) he, in the two latter cases, gently twisted the sac, passed a stout catgut ligature in and out through it, very carefully separated the peritoneum from the linea alba above the hernial aperture, passed a needle up into the artificial space thus made,

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and with this needle carried the catgut (already threaded through the sac) into the space and out through the linea alba. Then, on pulling the catgut tight, the twisted sac was, of course, pulled into the space between the peritoneum and the linea alba, reduced "*en masse*" as it were. The maneuvre of twisting the neck of the sac was suggested as a substitute for ligature, bv Dr. C. B. Ball, of Dublin. The hernial aperture was then, of course, free, and its edges had only to be refreshed and brought together with hare-lip pin and twisted catgut suture. The formerly mentioned catgut was fixed to the latter.

Both cases did perfectly well, excepting that one wound kept open and suppurated slightly for several weeks until the catgut suture came away. The other infant was able to bear a pad and sit up in a fortnight. Mr. K. does not think relapse will occur for umbilical herniæ tend to spontaneous recovery under favorable conditions, and these were established by the operation. One objection might prevail against this plan of operating. There is always a point down toward the lower end of the sac when it blends with absolute intimacy with the skin of the navel. This point he has never succeeded in seperating from the overlying skin, there consequently remains a small open passage at the lower extremity of each hernial aperture, which is otherwise closed. This opening has not so far tended to get larger, causes no inconvenience and though it presents an impulse, no hernia appears. Time will probably remove the aperture.

In excision this point presents the same difficulty is injurious to the neck of the sac, which should be avoided. The great majority of adult, sufferers are women, middle aged, or older,fat and multiparæ, and form a large proportion of the serious difficult and deplorable cases. Deplorable is the only word which describes a woman with half of her intestines in the sac of an umbilical hernia. when they become only partially reducible, and the majority do, the dangers and risk of operation are greatly increased. At this stage Banting gives much relief by reducing the omental and mesenteric fat. Banting says his own umbilical hernia disappeared while he was he was under treatment.

As to the question of radical cure, the vast majority of cases of umbilical hernia could be cured without any danger from the operation. There would be, he says, danger from the operator, from his assistants, from the nurses, from the patient herself. These dangers are real, though they are diminishing every day. But such dangers are quite microscopic when an operation is done with only one simple instrument like a knife or chisel,and when no one's finger, not even the surgeon's own, touches the wound; when also only one dressing is applied, and even drainage is superfluous.

But the radical cure of a hernia with excision of the sac and perhaps of a large quantity of omentum, with separation of adhesions, perhaps the insertion of many sutures and ligatures, some of which may have to be introduced into the peritoneal cavity, this is a very different matter. It must not be hurried: that would be to make a failure sure. It may last a couple of hours. During all that time several individuals have to share responsibility and keep up a sustained vigilance. However watchful over his subordinates the surgeon may be, he can scarcely follow their every movement, and attend to his own business at the same time. Damp sponges pass to and fro again and again, and various instruments, some not so simple as a plain and polished knife-edge. Of course this style of reasoning might be employed to prove a trip in a steamboat from Westminster to Blackfriars to be fraught with danger. But,on the other hand, steam navigation is much older than antiseptic surgery. However, just as steam navigation can be and is made safe enough for all practical purposes, so can be the radical cure of an irreducible umbilical hernia in a fat, middle-aged woman. But in order to make it safe, it is essential to approach it with the greatest respect and the strongest sense of responsibility.

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Incisions and Hemorrhages of the Cervix Uteri During Labor.

Dr. Skutsch read a paper on this subject before the Ger. Gyn. Soc., at Wiesbaden, Sept. 1887, of which the following is an abstract:

Cases are not very rare in which the inclination is urgent to terminate the labor in the interest of the mother or child, while the cervix is not sufficiently dilated to permit the extraction of an unmutilated child.

Withal, the dilatation may be normal, but not far enough advanced, or it may be pathologically delayed (rigidity of the os uteri, agglutination of the external os, insufficient dilatation associated with cramp like pains.) While treatment is simple in those cases in which the obstacle lies merely in the os (bloodless dilatation, short incisions), if a rapid termination of the labor becomes necessary forcible dilatation may be recognized also of a part or the whole of the canal above the external os. This can be effective only by free incisions of the cervix.

Short incisions in rigidity of the os uteri are largely recommended: deep incisions are generally cautioned against; owing to the dangers connected with them, such as infection, hemorrhage, and further tearing of the cuts. These cautions are perfectly justified when the cervical canal is still long. But in cases in which rapid termentation of the labor appears necessary, and there is only narrowness of the lower segment of the cervix (from the junction of the posterior vaginal vault downwards), the indications for incisions serving to hasten the labor and save the life of the child might be somewhat extended.

The danger of infection may be looked upon as done away with, since we have learned to conduct labors aseptically. The danger of hemorrhage, however, is considerable in cases in which the lower part of the cervix is not yet dilated and the presenting part exerts still insufficient compression on its walls. But the hemorrhage can be certainly controlled by a simple procedure, in incisions reaching no farther than to the vaginal vault. The procedure may be illustrated by a case of labor in which the necessity for rapid termination of the delivery arose in order to save the life of the child, at a time when the lower part (1½ cm.) of the cervical canal had not yet dilated. The os having been exposed by a grooved speculum, six incisions, each about two centimeters long, were made with Schultze's bent scissors. Profuse hemorrhage occurred immediately from the first incision, and was arrested by suturing the wound surfaces. Button sutures all over the gaping incision united the cervical with the vaginal mucous membrane. The hemorrage was arrested successively after each incision before the next was made. The threads were left long, so as to serve for subsequent traction. After these incisions, the opening enlarged sufficiently to permit the extraction of the child with forceps. The placenta having been expressed, two slightly bleeding lacerations which had occurred in continuation with the posterior incisions were closed with catgut sutures. The previous sutures placed for the arrest of hemorrhage were removed successively, and the incisions stitched with catgut. The child was living and the puerperium normal. By proceeding as in the case cited, *i. e.*, by arresting profuse hemorrhage from an incision with sutures around the wound surface before making the next incision, the hemorrhage can be certainly controlled where the cuts extend to the junction of the vaginal vault. It should be permissible to cut open the cervix to that point when insufficiently dilated, for the purpose of rapidly terminating a labor where this appears necessary.

While in the case of rigid os small incisions into the tense ring are preferable, where the entire undilated lower cervical segment is to be rendered passable, it is advisable to incise first the right and left sides, if need be as far the vaginal vault, and only when these cuts do not suffice to go in another direction, especially postero-laterally. After the labor is terminated, the temporary sutures for the arrest of hemorrhage are to be opened and the incisions closed by sutures like those used for recent cervical wounds.

When the incisions tear farther, the lacera-

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tions should be closed by suture, if possible; the threads which have been left long permit of rapid exposure of the field of operation. Should a lateral incision have torn far into the parametrium and given rise to profuse hemorrhage, the uterine artery can be circumligated from the vaginal vault.

In a case of considerable hemorrhage from the right side of the cervix, the author performed this circumligation with an ordinary curved needle. Perhaps it might be better to make a small incision into the mucous membrane, and then to do the ligation with a blunt aneurism needle.

In all these manipulations, it is important to be guided by the eye. In obstetrical manipulations, this rule should be followed more generally than hitherto; the curved speculum should not be wanting in any obstetrical bag.

A search through the literature revealed a brief communication recording a case operated on by A. Martin, which must be mentioned; in a labor associated with cicatricial stenosis of the os, incisions were made, the wound margins stitched, and the uterine artery ligated to arrest a profuse hemorrhage. It should also be stated that suturing of the wound surfaces has been performed in dilation of the cervix in gynecological cases.

The above is worthy of careful study for this reason it shows a remarkably heroic remedy in circumstanbes which on this side of the "Pond" are exceedingly rare, outside of a decided cicatricial state of the cervix. (And it is well to remark that a cicatricial cervix in unimpregnated conditions, to all intents and purposes becomes markedly changed as term approaches.) We can only feel that other methods are to be preferred to the one advocated by Dr. Skutsch. Fortunately the conditions,even from the standpoint of Dr. S., calling for these procedures are rare, and it is questionable whether the risk to the mother is fairly worth the possible death of the child. In skilled familiar hands it may be. No statistics are presented to show results.

The General Treatment of Puerperal Septicemia.

In 1886 the author reported nine cases of more or less severe septicemia, of which eight recovered through resort to alcohol in large doses, lukewarm baths, rich food, abstinence from the administration of all antipyretics. He then claimed that through these means the resistance power of the organism against the septic poison was heightened to a degree not possible by any other means. The reasoning which leads him to favor the above method of treatment is the following: Local treatment of puerperal sepsis may prevent the entrance of septic germs into the organism,but it cannot reach those which have already gained access. We possess no means for killing these latter, and therefore we must increase the resistance power of the organism as much as possible. To this end of first importance is the tone of the digestive apparatus, and both alcohol and baths tend to keep this tone at par. Especial stress is laid on the fact that the baths are not administered for the sake of lowering the temperature, but in order to influence favorably the action of the heart, and of the lungs, and to improve the appetite. Experience has taught Runge that the baths are not at all dangerous, even though the patient be in a state of collapse. As for the alcohol, its action is that of a direct heart stimulant, and it favors retrograde metamorphosis. Three additional cases of sepsis are recorded in this paper where this general treatment was carried out, and one patient died.—E. H. G., *Archiv. f. Gyn.*, XXX, 1.

Preparations of Extra-Uterine Pregnancies.

Mr. Lawson Tait exhibited a series of ex specimens of extra-uterine pregnancy in all stages of development from the earliest known case of tubal rupture, which apparently had occurred between the third and fourth week, up to a section of a cadaver at full term. The interest of these cases lay chiefly in the fact that they completely es-

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tablished the view as to the pathology of extra-uterine prægnancy which Mr. Tait had first published in 1873; that all extra uterine pregnancies were due to the impregnation of the fertilized ovum on the denuded wall of the Fallopian tube; that the tube was distended up to its bursting point, which generally was from the tenth to the thirteenth week. The condition of the subsequent pregnancy depended entirely upon the point at which that rupture took place. If the rupture was into the peritoneal cavity, then death took place from hemorrhage, and twelve of the specimens shown were illustrations of this. If, on the contrary, the hemorrhage took place into the cavity of the broad ligament, the hemorrhage was slight, and the pregnancy might go on to full term. Many of these cases, however, did not go to the full term; the fetus died, and was thrown off by suppuration through the bladder, rectum, or into the vagina, or ended in the formation of a lithopedion. A few well recognized examples of these were found in almost any museum. The minority of cases went on with the child living to full term, and could be operated upon. Mr. Tait had operated seven times under such circumstances. That the danger of rupture into the peritoneum was great was shown by the case of early rupture alluded to, where the patient was well at two o'clock in the afternoon, and was dead from hemorrhage from a small point of rupture in the tube at nine o'clock at night. In occasional instances, if rupture took place into the abdominal cavity, the placenta was separated from the tube and obtained new attachments. As one example he showed a preparation from a patient in Nottingham—to which town Mr. Tait was suddenly summoned to perform abdominal section on account of the condition of ruptured tubal pregnancy previously recognized by Drs. Hunter, Mackie and Brookhouse. He opened the abdomen, removed the fetus, the placenta, and stump of the tube, and tied the latter. As soon as this was done the brisk hemorrhage ceased, and a part of the placenta which had become implanted on intestine at the back of the uterus was removed, and the sites of it smeared over with solid perchloride of iron. The patient made a perfect recovery.

Placental Cyst.

Dr. A. J. Horne exhibited a placental cyst from a patient, aged 28, who was in the ninth month of her fourth pregnancy. She complained of intense pain in the abdomen. On external examination he was struck with the irregular appearance of the abdomen, particularly at the left hypochondriac region, where there was a distinct bulging of the uterus. On palpation it was impossible to discover the small parts of the fetus, the uterus felt so tense and firm. On making a vaginal examination he found that he could only reach the presenting head by laying the patient on her back. The membranes were tightly stretched over the head, and there was no appearance of liquor amnii. Thinking that there was internal hemorrhage, he was very cautious about rupturing membranes; and as the sero-sanguineous discharge was very slight, though it caused her some anxiety; he stopped it by a small antiseptic plug in the vagina. She had no labor pains until the next morning at eleven o'clock, when they came on, and she was delivered of a still-born child. Immediately after the expulsion of the placenta, huge clots the size of the placenta were expelled. She remained in a very anxious state for a couple of hours in consequence of extreme loss of blood, although previous to her labor the loss of blood had been very slight. On examining the placenta he found in the center of it, close to the insertion of the cord, the huge cyst now exhibited, the weight of which, acting downward like a suction pump, might, he thought, have been the cause of the hemorrhage.

Ustilago Maydis.

After briefly reviewing the history of corn-smut, the author relates his observations in nine cases in which the drug was employed, and then continues:

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The above comprise all of the cases within the three months in which it was deemed necessary to employ the drug to shorten the duration of labor. Before proceeding, it may be as well to state that the patients were all in good physical condition, that all were at term, and that all made a rapid and complete recovery.

Having now this record before us, let us endeavor by a careful examination of the cases, to group the results of our experiments, that we may the more clearly ascertain the value of the drug. Three or four points seem to stand out prominently, demanding our consideration.

1. The toxicology and physiological action of the drug.

No cases of poisoning in man by the drug are on record. That it is, however, possessed of toxic properties in large doses has been proved by Mitchell. He found that in the lower animals, in large doses, it acted violently upon the spinal cord, paralyzing first the sensory, later the motor tracts, finally involving the motor, and probably also the sensory nerves. Like ergot, then, it is probable that the chief force of the drug, in toxic doses, is expended upon the nerve centres, producing a toxic paralysis.

As may be understood, our studies on the physiological action of ustilago were necessarily limited. After the administration of the drug in three instances, there was considerable nausea, followed in one case by vomiting of the ustilago, together with the other contents of the stomach. This nausea seems to be of a similar nature to that produced by the ergot of rye, and calls for no further discussion.

The action of ustilago upon the uterus has been more carefully noted. After the ingestion of a sufficient amount, in from twenty minutes to half an hour, the pains, if present, are increased in severity, in frequency, and in duration, presenting a marked clonic character, following each other in frequent succession, with a decided intermission between each. In this respect it differs decidedly from the action of ergot, which, in full doses, produces one continuous, tonic spasm of the uterine muscle. It is this property of ergot which has, when administered before the delivery of the placenta, produced in so many instances the irregular contractions of the uterus, of which the hour-glass is a well-gnown example. The employment of ustilago seems to be entirely free from such unpleasant complications.

In addition to being a valuable adjuvant in stimulating weak uterine contractions, ustilago seems to possess the property which some years ago was ascribed to quinine, namely, of exciting uterine pains when entirely suspended. This has been noticed by Leonard and others.

As to the time required for the action of the drug to become apparent, it may be said that it differs in differeut cases, depending, undoubtedly, upon the rapidity with which it is absorbed from the gastro-intestinal tract and carried into the system. In the above record, in only two instances, did it require over thirty-five minutes before the ustilago acted upon the uterine tissues, and in the latter case most of the drug was ejected by emesis. In the remaining seven cases the average time required was twenty-five minutes.

The effect produced by ustilago upon the other unstripped muscular tissues of the body has not been inquired into. Probably it produces the same increase of intestinal peristalsis, and the same rise in the arterial pressure due to vaso-motor spasm as is produced by ergot. This is yet open to investigation.

2. The indications for the employment of the drug.

It may be noticed that in all the above cases the ustilago was not administered until complete dilatation of the os had been accomplished. Whether or not a disastrous effect would be produced, by the administration of the drug prior to the commencement of the second stage of labor, cannot be stated. As yet that question has uot been decided. From the study of the physiological action of ustilago, we should think all danger of the irregular contractions of its compeer, the ergot of rye, would be precluded, and that if there

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were any possibilities of the exigencies of the case demanding its use, it might be employed with impunity during the first stage of labor. At present, however, we shall consider the first indication for its use to be the failure of the pains, with complete dilatation of the os uteri.

In none of the cases was the drug employed until the pains of labor had either become so weak that they were inefficient to accomplish the expulsion of the fetus, or until they were entirely suspended. This, then, we consider the second indication for its use, namely, the inefficiency or entire suspension of the parturient pain.

After the ustilago had been taken, it may also be noticed that in no case was there the slightest tendency toward a post-partum hemorrhage. In each case after the expulsion of the placenta, the uterus remained in a state of firm contraction. While, during the three months the great majority of the remaining cases, in which the customary ergot had been employed, showed no tendency whatever toward this alarming accident, however, in two instances was there such an occurrence demanding prompt attention. The third indication, then, for the employment of ustilago we shall consider to be a condition of uterine inertia threatening or producing post-partum hemorrhage.

3. The dose and mode of administration.

The preparation of ustilago emyloyed in all reported cases, as well as in our own, was a good fluid extract. The dose of this varies from one-half to two drachms, one drachm being a fair average. This may be repeated at intervals as required. Should it be necessary, it may be used hypodermatically in doses of from five to fifteen minims.

Finally. The advantages of ustilago over ergot.

Dr. Frank H. Potter in a paper on the "Proper Use of Ergot in Obstetrical Practice," closes his article with a series of ten conclusions. In these he states that when administered during labor the action of ergot is uncertain, producing irregular contractions, rigidity of the os, with interference of the placental circulation, or too rapid expulsion of the fetus, jeopardizing the maternal tissues. He also asserts that the life of the child is endangered through absorption of the oil of ergot, and that indirectly the drug may prove a cause of puerperal septicemia by preventing the removal of every portion of the placenta and membranes. His last conclusion is as follows: The proper use of ergot in obstetrical practice is limited to those cases in which, after the expulsion of the placenta the uterus refuses to contract, or having once contracted, shows a tendency to secondary relaxation. Even in these cases reliance should not be placed upon it alone, but its action should be supplemented by the other means used to provoke uterine contraction.

When compared to this formidable array of objections the employment of ustilago seems much to be preferred to that of ergot. It does not produce irregular contraction with all consequent complications and sequelæ; containing but two and a half per cent. to twenty-eight per cent., the dangers of absorption are reduced to a minimum; and finally, as it can be procured at a cost of fifty per cent. less than that of ergot, it seems to be on a fair highway toward the supplanting of the latter in obstetrical practice, should the results of the investigations thus far be confirmed by subsequent researches.—*Medical News*, Nov. 5, 1887.

Antipyrin as a Uterine Sedative.

M. H. Chouppe has already called attention to the good effects of antipyrin in uterine pains after parturition or in dysmenorrhea. In proof of this he relates the following case. A woman, aged thirty-five, was suffering from a large myoma situated in the posterior wall of the uterus, accompanied by copious hemorrhage, which reappeared after memstruation. Ergot checked the hemorrhage, but caused such severe uterine pains that it had to be discontinued. Large doses of morphine were administered. These caused the pains to disappear, but at the same time the uterine contraction was relaxed and hemorrhage rea

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peared. Ergot was again administered with similar results. The attacks of uterine pains lasted two or three hours. M. Chouppe then had recourse to antipyrin. An injection, containing two grams of antipyrin, administered. At the end of twenty minutes the pains disappeared. M. Chouppe then tried the following experiment: An injection of antipyrin was given half an hour before the dose of ergot. The patient experienced no pain, although there was active uterine contraction. Hemorrhage was arrested. M. Chouppe concludes that antipyrin relieves the pain caused by the ergot without diminishing the contraction. He believes that it acts upon spinal cord, and might be administered with advantage during parturition to women possessing an irritable temperament.

ANTIPYRIN IN OBSTETRIC PRACTICE.—Dr. Charles Milne, of this city, writes: "Referring to the letter of Dr. Hays, in a recent issue of the *Medical Record*, on the use of antipyrin and antifebrine as hypnotics, permit me to say that I have been in the habit of using the former for the past six months, not only as a soporific but as an anodyne, and I now use it almost exclusively, instead of opium or its alkaloids, to relieve pain and produce sleep. It alleviates suffering without producing any unpleasant after-effects. I find it especially useful in cases of wakefulness due to over-fatigue, or exhaustion following cases of protracted labor. It is also, I find, an excellent remedy for after-pains. I usually give it in doses of fifteen to twenty grains, and repeat in two hours if necessary, but the first dose nearly always produces the desired results. My experience with antifebrine has been too limited to enable me to express any opinion as to its merits in similar cases."

It would seem from the three above reports (ustilago, maydis and antipyrin) that the obstetrician had with their combination found a long felt want, and that all trouble in the future inertia and severe pain, with the complications that follow, would be swept away and labor be made to approach the ideal; sure, safe and painless. We trust the combination will receive a fair trial and just verdict.

ORIGINAL ARTICLES.

BACTERIA FROM A BOTANICAL STANDPOINT.

BY PROF. WM. TRELEASE,

Member of the Faculty of Washington University.

Read before the Alumni Association of the St. Louis Medical College, Jan. 18, 1888.

[CONCLUDED.]

ISOLATION OF MIXED SPECIES.

These methods of cultivating bacteria are adapted to the requirements of nearly all species, and are employed whenever it is desired to study a colony that has surely resulted from a single germ. With more or less modification, the same methods are applicable to the isolation of species that occur in unknown mixtures. The oldest and to-day least valued method of isolating bacteria, consists in transferring a drop of fluid known or supposed to contain a number of species, to a sterilized solution of the proper character, kept in a suitably sterilized flask or other vessel, plugged with sterilized cotton or asbestos. Under different conditions of temperature, alkalinity, etc., one or other of the introduced species multiplies at the expense of the others, so that by repeated transfers the method may give pure cultures of one or all of the forms originally present. As has been stated already, inoculation from a pure colony may secure pure fluid cultures, which are most useful for certain purposes.

By diluting a fluid which contains several species, so that a drop is known from direct observation under the microscope to hold at most a single germ, and inoculating new flasks from single drops of this, it is possible to completely isolate a number of species originally growing together, when fluid cultures are employed; but many transfers may be required for this, because inoculation is sure to fail in some cases if the dilution has been carried far enough to insure the desired separation of the original germs, while, if it has not, some impure cultures are certain to result.

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Sources of First Cultures.

I have found one of the simplest and crudest of improvised methods very useful in obtaining preliminary cultures from which to make transfers of the common pigment species that are everywhere present. Halves of boiled or steamed potatoes are lightly pressed on the floor, in sinks, and, in short, wherever organic dust can accumulate. These are kept in moist chambers at a suitable temperature, and in from one to three days show more or less abundant zooglea masses, from each of which a culture may be started.

Water which is suspected to contain bacteria, is used, in the manner previously indicated, for starting fluid cultures; and air for biological investigation is drawn by means of some form of aspirator through a fluid, from which, after suitable dilution, preliminary cultures are started. When it becomes necessary, as in all medical investigations of bacteria suspected of causing specific disease, to obtain pure cultures of the organisms contained in tissues of man or the lower animals, particles of the diseased tissues are removed with sterilized instruments, under the most rigid antiseptic safeguards against contamination, especially from the surface of the body. Whenever it is practicable, this is done while the animal is still living, but under the influence of an anesthetic, from which, it is needless to say, it is not allowed to recover if the operation was a serious one. Otherwise, the removal is made as soon as possible after death. Blood, lymph, and other internal fluids, are removed with similar care. The material from either of these sources is made the basis of preliminary cultures, from which pure transfers are made to serum or other nutrient substance in test-tubes. Sputum, milk, urine, feces, and the undischarged contents of the alimentary canal, which are likely to contain a number of species, some of them the common septic forms, are similarly employed to start isolation cultures, from which transfers are made. In the case of sputum or feces, mucous clots, etc., are especially picked out for the first inoculation.

The most satisfactory method of starti cultures is that introduced by Koch, who object is essentially to observe from the firs colonies that have each originated from single germ. For more perfect isolation the colonies than is possible in a fluid cultu and for their more convenient examinati under low powers of the microscope than c be made when opaque media are used, t fluid to be tested is mixed in a suitable sta of dilution with sterilized nutrient gelati or agar-agar, that is then poured over car fully sterilized glass plates in a rather thi layer. When the gelatine has set, the plat are put away in moist chambers, with th usual precautions against contaminatio The colonies that form here and there in th mass are made the starting point of pure tes tube cultures. The same isolation of germ is effected more certainly by making the firs cultures in test-tubes, since the opportunit for contamination from the air is less; bu the ready accessibility of the colonies in plate culture is a great point in its favor when it is carefully made.

Specific Characters.

The methods that I have briefly indicated suffice in skilled hands for the isolation an propagation in pure cultures of nearly al bacteria. As has already been stated, the also furnish ample opportunity for observa tion of the gross characters of simple an composite zooglea masses, and at the sam time supply unmixed material in differen stages of growth for microscopical examina tion while living and after treatment wit suitable reagents and staining fluids. Fro a naturalist's standpoint, in short, they shoul be sufficient for the delimitation of the gener and species of bacteria. But in reality the may fail to afford the data necessary for thi descriptive and classificatory work, owing t the slight degree of structural developme that characterizes the entire group o Schizomycetes, and the inefficiency of ou present means of rendering evident such dif ference as actually exist. In some cases, how ever, a study of the situation in which the occur, and of the effects they produce, ma

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lead to the separation of two or more forms that appear to be identical in other respects, or seem to differ in so slight a degree as to call into question the propriety of separating them on morphological grounds.

The similarity of the hay *Bacillus* and the germ of anthrax or malignant pustule, has been frequently commented on. Two "comma *Bacilli*" are also known, in addition to that associated by Koch with Asiatic cholera. Students of bacteria are, therefore, forced to recognize some species from their effects. To a systematic botanist, this appears to be a false basis of classification, since his experience is grounded in large part on morphological studies. Yet I doubt if any person who has carefully followed the growth of our knowledge of the nucleus and plastids of the phenogamic cell for the last fifteen years, as method after method has been discovered by which structures previously unknown have been rendered visible, feels the impossibility of ultimately disclosing differences in the structure or composition of bacteria that with our present methods may appear alike, however much he may be disposed to combat the principle of recognizing physiological species.

PHYSIOLOGICAL INVESTIGATIONS.

There are many questions that a morphological study of bacteria cannot answer. These belong in the main to their physiology in the effects that they produce, and the way in which their life cycle is completed. Before the investigator can believe that a disease is due to a specific germ, he not only must have isolated this germ in a pure culture, but he must have seen it *in situ*, under unmistakable circumstances, and have himself caused the disease by unimpeachable inoculation, experiments on healthy animals from pure cultures rendered entirely free from all substances except the germs, that could in any possible way cause the disease. Sometimes this is comparatively easy, as in the well known work of Pasteur and others on anthrax; sometimes, extremely difficult, as in the study of cholera, typhoid fever, and other diseases of man. In one way or another, the pigments, narcotic ptomaines, and other products or excretions of given species, must be isolated in sufficient quantity for chemical, spectroscopic, or toxicological investigation. And there still remains to be worked out, the life history of more than one species known to at least accompany disease, but with more or less power to multiply as saprophytes.

The solution of most of these problems falls into that branch of bacteriology that belongs to medicine rather than to botany, and I feel some delicacy in alluding to them before a medical association. Yet so much popular interest is felt in what is a recondite subject to most persons who have not specially studied it, that I hope for your courteous indulgence while I occupy a short time in closing with thoughts suggested by what is now known or rendered probable in this direction, for the consideration of any non medical persons who may be present.

THE GERM THEORY OF DISEASE.

Aside from all prejudices *pro* or *con*, the theory which attributes many zymotic diseases to the agency of specific bacteria, appears to rest on a thoroughly scientific basis, at least as a working hypothesis. In saying this, I am not unaware that the evidence is very incomplete in regard to some of the most virulent and widespread of these diseases; nor that the errors of incompetent investigators, and the confusion and work at cross purposes sure to arise in the pioneer exploration of so new and vast a field, have thrown discredit on much that is trustworthy. Nor, unfortunately, can what Mr. Thomas Hughes calls the pugnacity of "The great Brown family," be overlooked in its stubborn,—I had almost said obstinate,—opposition to the germ theory of disease.

Much of this opposition is based on a misunderstanding of the facts in the case, or a false conservatism, partaking more of personal feeling than scientific acumen. Perhaps you remember the story of the Hannoverian Professor who, soon after the announcement of Schwann's theory of alcoholic fermentation, addressed his class in something like the following language: "Meine Herren, Sie muessen nicht alles glauben, was die Chemiker

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sagen; zuweilen lugen sie furchterlich. Ein gewisser Schwann behauptet, das die Alcoholgahrung durch laute kleine Insecten hervorgebracht wird, die Zucker fressen und Alcohol pissen!." Yet I believe that today the action of yeast in alcoholic fermentation is generally admitted, notwithstanding the ridicule it met with at first. As nearly as I can learn, the dependence of ordinary putrefaction upon the growth of *Bacterium termo*, is also understood and credited by educated people. Acetic, butyric, and several other fermentations are likewise recognized as the effects of so-called "figured ferments,"—in other words, bacteria or their nearest relatives.

Yet when the agency of members of this group of plants is suggested in connection with disease, it is often met with scepticism, and in some instances, with a blind opposition to such sanitary measures as are suggested by the germ theory. If opposition to this theory were always the result of a rigid scientific balancing of the facts and deductions upon which it rests, by properly trained men, themselves investigators, it would be highly commendable. Such opposition, in fact, is to be met with in the discussion of individual points, and is a hopeful indication that truth is held in higher repute that dogma. Much of the popular opposition, however, is pure scepticism. Some of this doubtless comes from inability to really comprehend the delicacy of the questions and methods involved; for in all discussion of this subject, we must remember that the modern laboratory is not at all like that of thirty years ago. Hence the fact that a man past middle age who was well trained in the methods of his youth, may be entirely without significance when bacteriological investigations are being made or weighed. I fancy that few intelligent people now believe in the spontaneous generation of infusoria, etc.; yet the old belief in it is still dying, because of the extreme ease with which contamination occurs in experiments that may be entirely vitiated by the introduction of a single living germ less than one-billionth of a cubic millimeter in volume, so that erroneous results are still being given publicity.

The Germ Theory and Sanitation.

It seems to me that the only tenable position today on the germ theory, is that which accepts it as a working basis in quarantine and general sanitation, with the distinct reservation that the germ nature of some so-called or presumptive germ diseases has not been proven. In illustration, let me take typhoid fever and Asiatic cholera. Both are held to be germ diseases by some investigators, while this is doubted by others. Both are recognized as filth diseases by nearly every-one, inasmuch as they are apparently propagated and communicated through contamination of food or drinking water by the excreta of patients. There are few among the opponents of the germ theory who would counsel aught but the most thorough measures to prevent their dissemination in either way. Yet in refusing guidance from a theory that they will not accept, they may fail to adopt sufficiently stringent safeguards, while believing that they are doing all that can be done.

Sometimes quarantine suffices to prevent the introduction of a plague, even for years, as it has thus far done in the United States during the present outbreak of cholera. But in the past history of these epidemics quarantine measures have only delayed the pest, giving time for Health Commissions to put their cities in the best possible sanitary condition. Has this use been made of the respite we have been given this time? If not, who is to blame? If the report of a committee of Philadelphia physicians recently commented on in *Science*, is to be depended upon, our exemption from the present epidemic up to the present time is not to be credited to the efficiency of the quarantine system of New York, so much as to good fortune, in conjunction with a very imperfect system of quarantine.

But when such a disease has once obtained a foothold, the principal means of checking its ravages lie in guarding the water supply of the healthy from the discharges of the sick, and in removing all filth in which saprophytic growth is possible, and from which infection might occur under ordinary circumstances. Whether the germ origin of the dis-

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ease is demonstrated or only hypothetical, the means adopted to this end must be those that are known to be efficient against bacteria, if they are to be effective. It is safe to say that no system of disinfecting or isolating food or water, is of value unless it is known to be capable of preventing infection by bacteria that may be contained in the discharges of patients. I do not see how any intelligent person who follows the course of one such epidemic can reach any other conclusion. The disastrous typhoid epidemic of Plymouth, Pa., a couple of years ago, is directly traceable to contamination of the city reservoir from a single case of the disease out in the country. It was my misfortune to spend a short time last summer at Iron Mountain, a little mining town in the Upper Peninsula of Michigan.

While I knew better than to expect very good sanitary conditions in a place of the kind, I was surprised at the utter absence of such safeguards against epidemics as most small places maintain in a more or less efficient fashion. Our first question at the hotel, "Is your drinking water good?" was promptly answered in the affirmative, and we were shown the well,—placed as usual, where it received drippings from both kitchen and vault. We drank no uncooked water from that well, nor was I at all surprised this fall, to learn of the frightful outburst of typhoid fever that the papers have reported. The fact was patent to our eyes and nostrils that a single case of the disease might infect the whole town. Outbreaks of Asiatic cholera have repeatedly been traced to single cases from which a water supply has been charged.

In view of the epidemic of cholera that has threatened us for some years, and can scarcely be entirely escaped if its past history furnishes any criterion, I would most earnestly urge every physician of St. Louis, whether he accepts or rejects the "comma bacillus" as the cause of the disease, every business man, whose prosperity may be seriously affected by such an interruption of the traffic of the city as attended the cholera epidemic of 1865, and every man who values the life of his neighbor, to make one more effort to secure the closing of every well or cistern that can by any possibility be contaminated by sewage, from whatever source.

You are probably familiar with the famous experiment of breaking the pump handle in a cholera ridden part of London, a century ago, and with the good that promptly followed the application of the remedy. The necessity for closing impure wells does not need demonstration; it is generally admitted. The physicians and business men of St. Louis have already tried to secure the compulsory and complete closing of dangerous wells, but these are still a menace to the health of the city. Some of you have a distinct recollection of City Ordinance No. 13,272, passed in March 1885, under which 152 wells had been closed by the Board of Health, when a new bill, introduced and engineered through the Municipal Assembly by the saloon men of the city, repealed it.

It may appear paradoxical to a prohibitionist, that the dispenser of grog and Tom and Jerry should show so warm an affection for cold water; but whoever has seen the congregation of teamsters on a pump corner, need not for a moment wonder at the opposition of saloon keepers to the closing of these wells that bring them trade. As a rule, it must be said in extenuation of their conduct, these men act in ignorance of the real menace that they are causing to be maintained to the health of the city. But if we may be charitable in judging the ignorant saloon keeper, and the no less ignorant ward politician who does his bidding, what shall be said of the public spirit and fidelity of a Mayor, cultured and educated, and well informed on the subject of hygiene, who signed the ordinance restraining the Board of Health, in the face of the remonstrances of the Medico-Chirurgical Society and the Commercial Club of the city? Let us hope that through the beneficence of that Providence that is said to watch over drunken men and fools, his action in this matter may not bring its own reward in the form of a pest upon the city, over whose welfare he presides!

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WEEKLY MEDICAL REVIEW,

EDITED BY

THE MEDICAL PRESS AND LIBRARY ASSOCIATION.

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J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, FEBRUARY 4, 1888.

SALUTATORY.

Having been elected by the Medical Press and Library Association, to the position of "Association Editor" of the Review, it is with pleasure I inform its subscribers, that with the direction and cooperation of its staff of editors, it is my purpose, as business editor, to carry out the sound principles that have won for the REVIEW the merited favor of its many readers.

The REVIEW must of necessity continue to advance in influence and usefulness, having the superior advantage of being edited by an able staff of active, leading men in the profession, each of whom enriches with his contributions the particular province of medical science, to which he has given his best thought and energy.

Our chief endeavor shall be to keep our readers informed of the progress that is being made in the various departments of medical science. Our weekly editions will place before them every thing that is really worthy of their attention. Our extensive list of exchanges will enable us to cull the best thoughts of the best thinkers among medical men of this country, and also of Europe.

We wish to emphasize that the dominant purpose of the journal, is the discussion of scientic questions. Its pages will not be open to personalities, which work injury to the writer indulging in them, and which in no wise conduce to the advancement of science. Ours is the cause of suffering humanity, and it is unworthy of us, that for the gratification of personal animosities we should ignore the principles of our high calling.

I would say to the friends of the REVIEW, and to my friends throughout the Miss. Valley and the West, that I am gratified, that through the journal, communication is established between them and myself.

I hope by prompt attention to their correspondence to induce them to give the profession the benefit of their varied experience in practice, thus stimulating the interchange of thought so essential to progress.

EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

The annual meeting of the Medical Press Association was held Mondny night, Jan. 30 at the residence of Mr. Wm. A. Scudder, 3811 Pine St.

The election of officers for 1888 resulted in the selection of the following.

President, Dr. Young H. Bond.

Secretary, Dr. Bransford Lewis.

Treasurer, Dr. W. G. Moore.

The executive committee which will have in charge the work of the Association during the coming year was selected as follows.

Drs. Bond, Outten, Porter, Scudder, and Love.

This Committee will have the editorial management of the REVIEW, in accordance with the rules of the Association.

The unaminous election of Dr. R. L. Thomson (formely of Louisville, but recently House Surgeon of the Manhattan Eye and Ear Hospital of New York), to be Association Editor, followed.

Dr. Thomson is well known throughout Kentucky and Indiana and we bespeak for him on behalf of the Medical Profession of St. Louis and Missouri a hearty welcome. With so efficient a man as Association Editor, under the direction of the Executive Committee, and with the aid and co-operation of the entire Press Association, the subscribers of the REVIEW have a right to

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expect a journal representative of the best interests of the profession.

I was impressed with the truth of the following sentence in the inangural address of President Y. H.Bond of the St Louis Medical Society; viz. "The number of baseless and visionary edifices, that medical men have constructed and stored with human lives, is appalling to consider". When I look back over the records of the past and find how much of the work done was worse than futile,I tremble with fear lest much that we are now engaged in doing, receive the condemnation of the future.And yet,to bravely and faithfully do one's duty, according to the light given, is all that any man can do. But each and every one should diligently and unceasingly seek "more light" by freely mingling with his fellows and absorbing the cream of medical literature.

A writer in the "*Register*" in a paper with the horrid title "Is Onanism Justificable" says:—"If all marriages were brought about by Providence, if parents were always healthy, if women had no deformed pelves, if mothers were all desirous of having offspring, and could have it without detriment to their lives,health, comfort and happiness, and if their financial circumstances were always equal to the consequent demands, then would the prevention of fecundation be a wrong."

The logic is fallacious. No wrong act ever yet righted other wrongs; or as the proverb says "two wrongs don't make a right."

What we want is a return to first principles; to the good old fashioned ideas upon this subject which obtained in the last generation. In those days large families and early marriages was the rule among rich and poor, the educated and refined circle as well as the ignorant. Preventives of conception and abortions were unknown; happy homes abounded; divorce courts and gynecology had never been dreamed of in their philosophy, but the mothers devoted their lives to bearing children and educating them in the direction of being useful citizens, good wives and husbands, noble fathers and mothers, rather than to "Society" "Temperance Unions," "Higher Education of Women," "Culture," "Co-education of the Sexes," "Suffrage" and other modern "frills" and fanatical "isms." They fully recognized the truth, and gloried in it, that "the hand that rocks the cradle is the hand that rocks the world.".

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Jan. 21, 1888. The President, Y. H. Bond M. D., in the chair. J. B. Prichard, M. D., Secretary.

Atresia Ani.

Dr. Meisenbach.—Mr. President, the child from which this specimen was taken was three days old before it was noticed that there was an imperforate anus, and that the child did not pass the contents of the bowel, that careful examination of the genitals of the child, which should always be made had been omitted. When I first saw the child it was three days old. I found that the extremities were livid, the skin was jaundiced and the child was vomiting a yellowish-white fluid, there was no meconium I think, but simply the contents of the stomach. Upon a careful examination I found that the abdomen was very much swollen, slightly tympanitic. I found the perineum was very rigid. There was no sign whatever of a rectal bulb, and I came to the conclusion that the bulb or rectal pouch must be very high up, otherwise there must have been some indication to the sense of touch of its existence. I found in the raphé at the site where the anus should have been a slight protuberance, which is very nicely shown in the specimen here. I told the mother that on account of the length of time that had elapsed, the condition of the child and the symptoms, that in my opinion if the operation were performed the child would probably die, and that I would not operate without the father's consent. The father opposed the operation upon the grounds I have stated, that the child was then almost in the

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throes of death. This specimen shows nicely the condition of things. I took great care to dissect the parts out. I have here the rectal bulb, a section of the perineum, the bladder and one half of the pelvis of the child. The rectal bulb teminates fully one inch above the perineum. I left the meconium in, to show the relations of the parts more clearly.

I found that the view which I had entertained that the rectal bulb must necessarily terminate very far above the perineum was correct. The intervening tissue does not show any development of the rectum at all; it shows simply a fibrous and connective tissue development. There are various stages or forms in which this malformation may occur. It may be very high or it may be a mere septum barring the opening. It may be very readily severed, or there may be various degrees of the distance from the perineum to the bulb of the rectum. Part of the colon may be absent as far as the ileo-cecal valve, and there may be merely a cord representing the colon. I have attempted in this diagram to more fully illustrate this case so as to enable the members to get a clearer conception of the relations of the parts.

Dr. Dean.—Was this a male or female child?

Dr. Meisenbach.—A male child. The practical point that I wish to demonstrate is in regard to an operation. The first and most natural way of correcting the malformation is to cut down through the perineum and attempt to re-establish the prima via, and in some cases this is possible, and in those cases where the termination of the rectal bulb is superficial that is the operation to perform. If you remember the anatomy of the infant pelvis, you will recall that the area of the perineum is very limited, we will find by measurement in the new born that the distance from one tuberosity of the ischium to the other is not over one inch, and also that the antero-posterior diameter of the perineum from the arch of the pubes to the tip of the coccyx is also not more than one inch or one inch and a quarter. With an area of one inch by one inch, the operation is a difficult procedure, and especially so in a case like this; the bowel being practically almost out of reach, so much so that it may be impossible to establish a rectum through the perineum. The other two operations then would be by opening the rectum in the inguinal region or in the lumbar region. If it is possible to establish the prima via through the perineum, resort is had to one of the other operations. It has also been attempted after performing the operation in the inguinal region or in the lumbar region, after the patulency of the canal has been established, to again open the tract through the perineum, but this has proven to be a very dangerous procedure. Cases where it has been attempted have proven fatal. The practical question is whether the patient would not be better dead than have the rectum either in the lumbar or inguinal region. Of course if this child had been seen at an early day, within a few hours after birth, either one or the other of the two latter operations might have been successfully accomplished as far as the life of the patient or the operation was concerned, but the question is whether it would have been a practical operation as far as the patient was concerned, when you take the conveniences of life into consideration, I think this is an open question. I believe a patient is better dead than to have an anus in the lumbar region or in the groin, whether that patient be young or old. Of course this is probably not the right view to take from the standpoint of the surgeon, but I think that is the proper view to entertain from a moral standpoint.

Dr. Edw. Borck.—If you had seen this child in the beginning, what kind of an operation would you have performed in this case?

Dr. Meisenbach.—I should probably have attempted to have found the gut through the perineum. If satisfied that I could not accomplish this I would have reached it through either the inguinal or lumbar region. Of course that point would not have been decided before the operation.

Dr. Edw. Borck.—The pathological specimen is interesting and instructive, especially

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to the surgeon who takes an interest in congenital malformations. If there is simply a thin septum of perineum over the rectum, it is a very simple matter; but if the bulb of the rectum is high up and you can not pull it down, the operation is much more difficult. I have had several such cases. In one case I made an incision until I reached the rectum, and then I operated no further for three days, simply keeping the wound open with sponges. On the third day, after, I found that the meconium had come down and distended the part so that there was no trouble to make an opening and stitch the end of the gut to the skin, thus making an opening. In that case the child recovered without any bad symptoms.

Dr. Dean.—There is one point I hope the doctor will examine still more closely; that is, to see if there is any connection, however fine, with the urethra or neck of the bladder. It is very seldom that atresia ani occurs without there being an exit somewhere either into the vagina, bladder or into the urethra or ureters even. As the ureters do not develop from the kidneys downward to the bladder but from the bladder upward toward the kidney, so that where there is but one kidney, there may be two ureters, one to one kidney, the other extending from the bladder a considerable distance toward where the other kidney should be; so the anus is formed by an invagination, involution or growing in of the epiblast upward, meeting the lower end of the bowel above. The tendency of the mesoblast is to unite in advance of the epiblast. If the splanchnopleure closes before the somatopleure, the opening may remain in the cloaca or in the sinus urogenitalis.

Dr. Meisenbach.—I distended the bowel pretty thoroughly, and as far as ordinary evidences go, there is no opening communicating from the rectum to the urethra or otherwise. If any had existed I must have been able to express from it some of the meconium and fluid. I found no evidences of exudation. There was one slight incision which I made when dissecting out the parts. I sewed that up carefully and then put pressure upon the contents of the bulb, and tied it down and found no evidences of any escape of the fluids. The meconium that escaped at first through the incision was mucus tinged with green.

Dr. Dean: I would suggest that the doctor use a very fine grooved director and open the urethra into the lower part of the bladder, so he may see from before backward, he may see whether any point of opening into the bladder exists.

Dr. Prewitt.—Unusual tumor of the uterus. A few weeks ago a patient came to me with a tumor supposed to ovarian; a maiden lady, 47 years of age. It extended up above the umbilicus, fluctuated, was evidently a cyst. She had recognized its presence five years ago herself, but says that there had been something wrong about the uterus or pelvic organs for sixteen or seventeen years, at least so some physician supposed, and had advised an examination, which she objected to and no examination was made. She had menstruated from the time that she was fifteen or twelve years of age; she menstruated until last summer when upon the receipt of some sudden distressing news, menstruation ceased for two months and then returned and continued nntil five months ago when it again ceased. There has been no indication of menstruation since that time. On examination I could detect this rounded tumor that, as I have stated fluctuated. It was evidently a cyst. On making a vaginal examination, which was a little troublesome because the hymen was intact, I could detect the body of the uterus seemingly, and it gave to me the sensation of a rather retroverted uterus from pressure of the tumor upon it. I could pass my finger back of the cul-de-sac of Douglass and feel the body of the uterus seemingly; passing forward around the cervix, my finger passed up to what seemed to be a sort of projection, a growth which apparently presented a sort of sulcus between the growth and the body of the uterus, as though the tumor was so closely connected with the uterus that they could not be separated; that there was no space between them which could be recognized: still it had the feel to me as though

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there was a sort of sulcus beteen. Evidently the uterus was closely invested by the tumor; there was no fluctuation below; it was solid and hard. The uterus did not appear to me to be very much enlarged. I was much puzzled to determine the character of the tumor. That it was a cyst I was satisfied, but I told her there was something unusual about it, that it was not an ordinary ovarian tumor. However she was anxious to have it removed, and I saw no reason why it should not be attempted. I didn't introduce a sound into the uterus and afterwards felt that I had reason to congratulate myself that I did not. I suggested to her an exploratory laparotomy, and that if I found out I could not remove it there would probably be no great injury. She objected to this and said she wanted it out and that she would rather die than let it remain. I told her that as she felt thus about it, I was ready to assume a good deal of responsibility in removing the tumor, even if I found it a difficult thing to do under the circumstances. Three weeks ago I opened the abdomen and found a smooth round cyst which fluctuated, and which had some solid matter about the walls. I introduced a Wells' trocar which let out a dark bloody like fluid which soon plugged the tube so that it would not flow. I had to enlarge the opening in the abdominal cavity in order to get the tumor out. I examined the pedicle, and to my astonishment I found it continuous with the uterus. It was evidently a cyst filled with blood. At the upper part of what would naturally have been the uterus near the fundus the Fallopian tubes passed out. I passed my fingers along and picked up the ovaries; they were all right, and rising above from the fundus of the uterus was this tumor continuous with the uterus. I was very much puzzled about it. The uterus itself did not seem to be very much enlarged, still there was this continuous growth above. I could see nothing to do but to remove it, and I did so, strangulating it to a certain extent with an elastic tube—a rubber tube first, and then ligating it, using Tait's ligature. There was little bleeding from one of the vessels. I found an opening in the lower portion of the cyst—I had opened the cyst by cutting it across—I could readily have passed a probe. I did not pass a probe and am now sorry that I did not. I closed it by the extra-peritoneal method. The patient has done pretty well although there has been some suppuration in the track of the wound, and seemingly a slight intra-mural hemorrhage. On removing the dressing on the 8th day considerable bloody fluid escaped from the walls. The gentlemen will find upon examination that the lower portion of this tumor is undoubtedly uterine. It was plain to me that it was uterine tissue; yet it was entirely above the Fallopian tubes, which are intact. The ovaries are also intact. Here then was a cyst which under ordinary circumstances we would suppose to be an hematometra, yet unique in its character. The woman had menstruated regularly for twenty-five years. She complained of some pain in the back, it is true, on the day before and the first day of her menstruation, but many women complain of pain during menstruation. She menstruated usually about three days, and has never had any irregularities in that direction. She menstruated until five months ago yet she certainly had the tumor long before that; she certainly had a tumor five years before. Hematometra are usually the result of an obstruction of the vagina or of the cervical canal by some means, either the result of inflammatory action or the encroachment of a tumor on it. This was not the case in this patient. She had menstruated regularly without any trouble whatever. Where then did the blood come from? And if it was an hematometra, how did it happen that the whole cyst was above the Fallopian tubes. Here was an opening which seemed to extend down into the cavity of the uterus, but the whole expansion of the tumor almost was above the Fallopian tubes. As you see there, there is a thick wall which I cut through to get rid of the tumor. The lower portion at least was uterine tissue; above it had so changed that it no longer resembled uterine tissue; it was not only a thin wall above, but there was nothing like uterine tissue about it. I don't

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know whether the probe would have gone into it from the cervix or not, but I felt that I was fortunate in not having made the attempt, for if I had passed a sound into the uterus and could have entered the cavity I would almost certainly have set up a disturbance that would have resulted in destructive changes, a septic condition, and my patient would have been infinitely worse. When we have hematometra under ordinary circumstances we can certainly expect the body of the uterus to be distended, that certainly was not the case here; the body of the uterus is still within the abdomen, and the Fallopian tubes and ovaries are still intact. The whole expansion has taken place in the upper segment of the uterus above these appendages, and has taken place while the woman was menstruating regularly. This is something very unique in the history of hematometra. This woman was 47 years of age. Hematometra much more frequently occurs in young girls, although it has occurred in older women, women 45 and even 60 years of age, but it is very rare in women of that age.

Dr. Lutz.—Do I understand you to say that the uterine cavity was left intact?

Dr. Prewitt.—Yes, sir: so far as I know.

Dr. Dudley.—Did you leave any portion of the growth behind?

Dr. Prewitt.—It was not a growth; it was simply expanded uterine tissue; where I cut through, it was clearly uterine tissue.

Dr. Coles.—According to the drawing there seems to be a septum between the cavity of the uterus and the cavity of the cyst.

Dr. Prewitt.—No; it simply went down like this (illustrating), so far as I know. The opening was plainly visible, and seemed to pass down into the cavity of the uterus.

Dr. Dorsett.—Did you close the opening?

Dr. Prewitt.—I did not. The pedicle was closed by the extra peritoneal method, and I don't think it made much difference.

Dr. Pollak.—Was there much hemorrhage?

Dr. Prewitt.—No, sir.

Dr. Dudley.—Did it seem to be uterine tissue clear up?

Dr. Prewitt.—No, sir; there were no indications of uterine tissue in the upper portion whatever.

Dr. Meisenbach.—I would like to ask you whether the canal leading from the cavity of the uterus up was perfectly developed and supplied with a lining membrane?

Dr. Prewitt.—I don't know whether it was or not. I did not pass the sound. It seemed to pass on down into the uterus. I did not pass a sound either per vaginam or from above into the pedicle, but the opening passed on down in the direction of the uterine cavity.

Dr. Meisenbach.—Then why would not the fluid go into the uterus?

Dr. Prewitt.—That is the question.

Dr. Lutz.—What was made to constitute the pedicle? Was it a portion of the uterine body that was continuous with the upper portion of the cyst wall?

Dr. Prewitt.—It seemed as if dilatation had taken place in the upper segment of the uterus, and could not expand any larger without involving the lower portion of the uterus. The uterus was larger than normal. The lower portion of the tumor was simply uterine wall, the upper portion was thin cyst wall.

Dr. Pollak.—Was there any pedicle at all?

Dr. Prewitt.—No distinct pedicle; it was simply a continuation of the uterine tissue.

Dr. Pollak.—How did you know where to cut?

Dr. Prewitt.—I cut it off straight across and closed it up. The only explanation that presents itself to my mind is that it was a biparte uterus, and one-half only of the cavity had become distended with menstrual blood; the other had gone on menstruating, and through some difficulty or other, a distention has taken place in one side only; one side has become distended, and a unilateral hematometra has occurred. We do have uterine fibroids sometimes breaking down in the central portion, forming a cyst. I don't think this was a tumor of that character.

Dr. Lutz.—One of the most unfortunate

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circumstances in connection with this very interesting case is, as the doctor has well stated, his failure to introduce through the opening a probe into the uterine cavity, and we can judge only, therefore, from the appearance of the tumor as to its nature. It is a well known fact that the ordinary division of uterine fibroids into the sub-mucous, the intra-mural and subperitoneal indicates their most usual localities. From the appearance of this tumor, from the fact that a portion of the tumor removed is apparently—and I say apparently, because no microscopic section of it has been made—a continuation of the uterine wall, and that the contents of the tumor are coagulated blood; and that the thinner portion is nourished by a large blood vessel. On the inner aspect, perhaps to the right of where the incision was made to show the contents of the tumor you will see a good sized artery. I think it is a blood vessel. It has all the characteristics of a blood vessel, and is about the size of the radial artery. It occurs to me that this tumor was an intra-mural fibroid at first, and as it gradually grew, growing in the direction of least resistance, it became a subperitoneal tumor—a subperitoneal fibroid, and from what we know of the natural history of fibromata of the uterus, we know that they are liable to undergo almost any kind of degeneration, so that we have in many instances a combination of the fibroid with cystic degeneration of perhaps only a portion of the so-called fibro-cystic tumor of the uterus. The argument for assuming this to have been a tumor of the uterus, and not a double uterus, is, in the first place, its peculiar position. It is one of the rarest things to have a double uterus with one portion situated higher up than the other. The ordinary configuration is that they are situated by the side. As I understood the doctor's description of it, the broad ligaments, the Fallopian tubes, the ovarian tissue, in fact all those tissues in which ordinary cystic tumors, or in which neoplasmata develop, were perfectly normal. Here we have a tumor covered by peritoneum, occurring above the uterine body, with no adhesions, no kind of connection with any of the adjacent tissues. In addition, we have a tumor in a woman at the age when we ordinarily expect to find fibromata; and more than that at an age when we expect to find the changes which fibrous tumors undergo to take place. Now the same struggle is going on so far as hysterectomy is concerned; the question of whether or not to insert a stump of the uterus into the abdominal wall, or else treat it intra-peritoneally as especially developed by Dr. Martin, of Berlin. I would like to hear Dr. Prewitt's reasons for treating the pedicle in this case extra-peritoneally—whether it be simply because the doctor believes it was the safer method, or whether there was anything in the anatomical construction of the tissues involved or of the uterus to cause him to prefer the extra-peritoneal method. Every case of hysterectomy which comes up, ought to be viewed with that point in view, and an endeavor should be made to determine which of the methods is preferable. I believe, as I stated at the outstart, that the intra-peritoneal method will supercede the extra-peritoneal, just as the intra-peritoneal method of treating the pedicle of ovarian tumors has superceded the implantation of the pedicle into the wall of the abdomen. About the time of the menopause fibrous tumors are liable to undergo a degenerative process. I perfectly agree with those who say that it is impossible to determine the nature of this case from the macroscopic appearance. To all appearances it seems to me that the tumor is continuous with the uterine wall. I believe, then, that the tumor is a uterine fibroid which has undergone cystic degeneration. Whether or not the extra- or the intra-peritoneal treatment of the pedicle is preferable is a question which is as yet *sub judice*. The tendency in abdominal surgery is toward the performance of the ideal operation; to endeavor to treat the pedicles of extracted tumor intra-peritoneally, the success of ovariotomy in that respect, and the gradual transition from one method to another will perhaps be followed in the treatment of hysterectomy stumps. You will remember that Spencer Wells has had more to

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do with diverting the treatment of ovarian tumors than any other operator. His first method, and in fact that of the most operators was to treat the pedicle of ovarian tumors extra-peritoneally.

Dr. Wm. Johnston.—Has any body recommended or used the wedge shape incision except Martin? He is the only one I know of.

Dr. Lutz.—Doctor, I cannot answer the question. It was Dr. Martin who at first suggested the method; how many other surgeons have followed his suggestion I do not know.

Dr. Dorsett.—There is one point I would like to suggest. The doctor says there was an opening running from this tumor, apparently into the uterus. Now might it not be that there was a valve like opening which would permit of the entrance of blood into the tumor but prevent its escape, something like the valve of the heart.

Dr. Lutz.—I would suggest that as the President takes a great interest in the subject he tell the society what he thinks of the tumor?

Dr. Bond.—I will state briefly that Dr. Lutz has expressed my idea as to the character of the tumor. I think primarily it was an intra-mural fibroid with a tendency to become sub-mucous.

Dr. Walter Coles.—I agree with Dr. Lutz in all that he has said in regard to this tumor, but there is one other point which suggested itself to me from the imperfect examination which I made, and that is with regard to the character of the contents of the tumor. If this were a double uterus; if the upper cavity were a portion of the uterine cavity, that it would of course have the ordinary mucous lining of the uterus, and the accumulation of fluid in the tumor would be mixed with epithelium and partake of the character of menstrual blood. I understood the doctor to say that that the tumor contained menstrual blood but an examination of the specimen does not agree with this; in other words it shows that there a great deal of coagulated blood which has undergone partial disorganization; that it is in layers; that it is organized in layers; that it is adherent to the wall of the cyst. Now if this were a double uterus, I don't think anything of that kind would be likely to occur; the blood would remain perfectly fluid, or in rather a treacly consistency, something like molasses, at least it would be mixed up with more or less epithelial cells which would render the diagnosis certain if any of the contents of the tumor were examined. Then the presence of this blood vessel —and not only one but three are a number of smaller ones also coming up from the wall of this tumor, making their way into its disintegrating tissue whether it be coagulated blood or a portion of the tumor. In these fibroids it seems to extend as the tumor grows; the wall seems to grow thinner, disintegration takes place in the interior of the tumor going on toward the surface, and as we approach the surface the wall becomes more and more highly organized until at last we meet with blood vessels. It seems in this specimen as if these blood vessels are making their way toward the interior of this tumor. How soft it was at the time it was removed, before it was subjected to the action of the alcohol of course I am unable to say. The whole appearance of the contents of the tumor would lead one to believe it was some other growth than simply the result of the coagulation of menstrual blood in a double uterus or in one side of a double uterus. Then, as Dr. Lutz has already stated, the situation of the tumor is very peculiar if it were a double uterus.

Dr. Meisenbach.—If this were a double uterus we would hardly find an artery so developed within the thin uterine tissue as to jut out into the cavity of the uterus, whereas if it were a superimposed fibroid it is possible for the vessel to become projected from the uterus. It seems to me the question would be settled by tracing the ramifications of this artery.

Dr. Dudley.—Where did the blood come from then?

Dr. Meisenbach.—It came from this artery of course, in the degeneration of the fibroid.

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Dr. Prewitt.—If it were proven that the artery was a continuation of the artery ramifying near the fundus of the uterus what would it prove other than that one of the smaller branches had been developed.

Dr. Meisenbach.—That was not a hematometra as in those cases we never have an artery jutting out in that way.

Dr. Dudley.—The rupture of the artery is a mere supposition; there is no evidence of any rupture of arteries.

Dr. Meisenbach.—There are free ends of an artery to be seen there in the tumor.

Dr. Dean.—I think this specimen should be much more thoroughly examined. Taking it in the light which we have, I should be inclined to the view expressed by Dr. Lutz and Dr. Coles. Certainly it can not be a supernumerary uterus; it can not be a bipartite uterus nor a bicornuate one, for here is a uterus which is represented as perfect having tubes at the proper place. If the tumor was congenital caused by a constriction or the two cavities opened one into the other, with an opening anything like the size of the one we have here, there certainly must have been constantly more or less flow from the cavity, into the uterus, of the contained fluids, blood etc., of the former after they were formed. It seems likely the opening is caused by cutting across the lower portion of the cavity of the tumor. I think what looks like an artery projecting into the cavity is an obliterated artery.

Dr. A. Green.—I merely wish to ask Dr. Meisenbach if it is not likely that in case there was a degeneration of the tissues there and open lumen of the artery, if it is not likely this artery would have become thrombosed—if thrombosis would not have occurred in that artery before there would have been degeneration—before it would have opened by the degeneration.

Dr. Prewitt.—I was greatly puzzled to determine the character of that tumor. I considered the question of a breaking down fibroid, and it did not seem to me to be of that character. I will say that I have not looked at the tumor since the operation, I have not had time to do so, this is the first time I have seen it since the operation, and what I have said about it was the impression it made upon me at the time of removal. I should have examined it more carefully. I am still undecided as to the character of the tumor. It does not seem to me that the explanation that it is a fibroid is entirely satisfactory. That the little projecting branches there are arteries is entirely an assumption, if they are arteries they are perfectly solid, they carry no fluid. I am inclined to think the blood is more thoroughly coagulated since the alcohol has acted upon it.

I would like to know if Dr. Lutz ever saw or heard of a case of this kind; a case of degenerating fibroid that had grown as large as thia has within five years, forming in the meantime a distinct cyst wall wnich was filled with blood. It is not the character of secretion from the cyst wall. Nor do I see how blood vessels would project out an inch and a half from the wall. The process of degeneration would ordinarily involve the blood vessels as well. When tissue degenerates it carries, as a rule, the blood vessels with it, and certainly I should be very much astonished to find that a fibroid of the uterus had degenerated and grown within five years to be as large as that.

Dr. Dean.—I would like to ask the doctor if the neck of the uterus was enlarged. I understood him to say the uterus was about three times the natural size.

Dr. Prewitt.—No sir, the neck seemed to me a little enlarged from what we would expect in the virgin uterus but not so much enlarged. With regard to the treatment of the pedicle, the latest declaration that I have seen upon that subject is by Dernier who treats of this subject, and he reviews the position taken by Martin, Braun, and others, and comes to the conclusion that the extra-peritoneal method is the better method in hysterectomy and he speaks of several distinguished surgeons who have been converted to his views, and in the article to which I refer he speaks of the very condition of things which happened here; hemorrhage and suppuration is likely to follow as a consequence. He is emphatic ln his declaration that the extra-peritoneal method is better and a safer method, and a more successful method.

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ORIGINAL ARTICLES.

GERM DISEASES.

BY YOUNG H. BOND, M. D.

The appearance in 1872, of the series of memoirs, by Cohn, of Breslau, upon the subject of bacteriology, throwing the first ray of light upon the scientific significance of bacterial organisms, constitutes that period one of the most memorable epochs in the science of medicine. Science thereby received a more decided impulse toward evolution than it had for ages before. And to-day it can be truthfully said that no subject more completely engrosses the thoughts of medical men than that pertaining to the etiological agency of germs or microbes. Nor is there any direction in which they look with more confidence, and with a sense of better grounded hope for magnificent results in disclosing the secrets of disease, than to the field of microscopic organisms.

The claim that the etiology of all infectious diseases is the presence within the body of micro-organisms, whilst supported by many specious facts and circumstances, reinforced by analogical reasoning, cannot without doing violence to the rigid requirements of science, be conceded as established; and hence, as yet, the claim in its entirety must be restricted to the realm of theory. I use the word entirety wittingly, for as respects some of the infectious diseases, the proof of their organic nature is well established, and rests upon an equal footing with the best attested scientific conclusions.

The opponents of the theory rest their objections upon the fact that the proof has not been furnished, rather than upon the adduction of militating facts or circumstances.

In the case of malignant pustule or splenic fever, the specific microbe invariably produces the disease in a few hours after inoculation, even when carried through a hundred cultures, and there is as little doubt of the fact that cholera, erysipelas, diphtheria, pyemia, septicemia, tuberculosis, and the inflammations and gangrene accompanying surgical lesions, are producible by inoculations of their respective cultures.

Many difficulties are experienced in mycrological investigations; the first of which lies in demonstrating the constant association of the microbe with the disease in question, the proper appreciation of the difficulty of which is to be found in the extreme minuteness of all such organisms, and the very great similarity of appearance that some of them sustain to each other; and there is the necessity of viewing and studying them through the microscope, a medium far less satisfying even to those most practiced in its uses, than would be the unaided eyes, were this study possible under such circumstances.

So far they are, in the main, distinguished by chemical tests of staining, and it is not known positively in all cases that such observations are not open to the criticism that similar reactions may occur in dissimilar organisms. The difficulty of obtaining positive reliable and pure cultures can be estimated only by those who essay the task.

And, so far again, the requirement has obtained, that only healthy animals should be the subjects of experimental inoculation, and as we know that the healthy body has, under the right conditions, considerable power of resisting the attacks of disease, it is impossible to estimate accurately the abating influence of such requirements.

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Consequently negative evidence is not of much value.

And further, experiments are performed upon lower animals, whilst the cultures have reference to those diseases common to man, diseases from which the animals experimented upon enjoy comparative immunity.

An interesting question in connection with this subject is the manner in which the bacteria causes the disease. The growing sentiment seems to be that the presence of the microbes in the system sets up chemical changes known as putrefaction, etc., resulting in ptomaines. The argument for this theory is found in the fact that the latter are found in all matter putrefying under the influence of microbes. The poisonous agency of ptomaines is sufficiently appreciated, and there is no question but that they derive their special poisonous features from specific conditions. Since bacteria are divided, as respects their nutrition, into saprophytes, those that feed upon the substances of dead animals or plants, and parasites, those that feed upon living parts or beings, may it not be that we fail to estimate properly the influence of hereditary deficiencies in furnishing a suitable nidus for bacterial invasions of the class of saprophytes?

The fact that hereditary deficiency, in whatever organ located, means a disturbance in the balance of waste and repair, which aids the invasion of bacteria of the saprophyte species, favors the former theory, and furnishes an explanation of the undoubted agency of hereditary influences in determining disease and death.

There is no question but that micro-organisms differ in their nature very widely, and it is impossible to refer them all to any single law of relation. I have often thought that in the case of those infectious diseases, one attack of which afforded immunity from subsequent attacks, the possible explanation was to be found in the destruction of some physiological function, the exercise of which was essential to the production of nutritive elements adapted to the requirements of the specific germ in question. If such should prove to be the case, we should be furnished with an explanation of the modus operandi of preventive inoculations, and at the same time be taught to confine our experiments of inoculation to the prevention of that class of parasitic diseases, the parasites of which feed upon living matter, rather than to those the bacteria of which utilize effete organic material as their nutritive reliance. In the one case hereditary agency would be *nil*, and such experience proves to be the case, whilst in the other the disturbed relation of waste and repair increased by hereditary deficiency would constitute a condition, the existence of which would be quite as essential in the production of the disease as the presence of the special bacteria itself. There are many circumstances in the history of phthisis, and in that of the bacillus tuberculosis which, when taken together, furnish strong presumptive evidence that phthisis might be aptly chosen as an example in many respects of this latter class of bacterial diseases—diseases, the occurrence of which presupposes the existence of certain conditional states of functional depravity.

ARREST OF EVOLUTION VERSUS MATERNAL IMPRESSIONS.

BY ARCH. DIXON, M. D., HENDERSON, KY.

The subject of maternal impressions upon the fetus *in utero*, at all times an interesting one to the more thoughtful members of the medical profession, has recently been brought into prominence by the able article on "Fetal Deformities," read by Fordyce Barker before the American Gynecological Society, at Baltimore, in September, 1886, and more recently by an able paper from my esteemed friend, Dr. T. B. Greenley, of Kentucky, published in the *American Practitioner and News*, October 29, 1887. Both of these gentlemen have cited cases and produced arguments to prove that mental impressions upon the mother are conveyed to the fetus in utero, and are the cause of monstrosities, amputations, nevi, etc.; but, like Hammond, Dalton, Tuke, Seguin,

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and other eminent advocates of this theory, I believe neither of them claims that these effects are brought about otherwise than through the medium of the blood, which in some way conveys the influence of the existing condition of the mother to the fetus by the interchange of circulation. The evidence brought forward by these gentlemen is far from conclusive,and I think can be successfully refuted by the proof of demonstrated pathological, physiological, and embryological truth, which undoubtedly reveals that all of these so-called maternal impressions, monstrosities, marks, etc., are the results of arrest of development or evolution, pressure by amniotic bands, pressure by the umbilical cord, adhesion of the placenta, or by some pathological condition of the fetus or its membranes, or by heredity.

In order to do this it will be necessary to glance as briefly as possible at the anatomical and physiological relations of the mother to the embryo. Immediately after the fertilized ovule has passed into the fallopian tube it is found to be surrounded by a layer of granular cells. As it proceeds along the tube these surrounding cells disappear, partly by friction on the walls of the tube, and partly by being absorbed to nourish the ovule. When the ovule has advanced some distance along the tube it becomes invested with a covering of albuminous material, which also, according to Newport, contributes to its nourishment. During this passage of the ovum through the fallopian tube, the mucous membrance of the uterus becomes thickened and vascular, so that its opposing surfaces entirely fill the uterine cavity. The result is the formation of a distinct membrane (decidua vera) which affords the ovum a safe anchorage and protection until its connections with the uterus are more fully developed. The decidua reflexa is now formed by the sprouting of the decidua vera around the ovum at the point on which the latter rests, and eventually completely surrounds it. The blastodermic membrane, which forms a complete spherical lining to the ovum between the yolk and the zona pellucida, soon divides into two layers, the most external called the epiblast and an internal called the hypoblast, and between them is subsequently developed a third known as the mesoblast. From these three layers is formed the entire fetus; the epiblast giving origin to the bones, muscles, and integuments, the nervous system, the serous membrane, and the amnion; the hypoblast forming the mucous membranes and the alimentary canal; and the mesoblast the circulatory system.[1]

Almost immediately after the separation of the blastodermic membrane into layers, the area germinativa is formed, and in the center of this the first trace of the fetus is detected in the form of the "primitive trace." On each side of the primitive trace two elevated plates arise, the laminæ dorsales, which gradually unite posteriorly to form a tube within which the cerebro-spinal column is subsequently developed. Anteriorly they join to form the thoracic and abdominal cavities, inclosing portions of the epiblast, from which the serous membranes of the body are developed. The minute embryo thus formed soon curves upon itself, the dorsal surface of the body becoming much arched. The arching of the back is caused by the quicker growth of the dorsal surface, and by Haeckel is said to be directly connected with the detachment of the embryo from the yolk sac. A distinct thickening is observed at one end, which is subsequently developed into the cephalic extremity of the fetus, while at the other end a thickening less marked develops into the caudal extremity. From these two points the amnion is formed, composed of two layers, which gradually unite and inclose the fetus. During this time the hypoblast is also developing two projections at either extremity of the fetus; one forms the intestinal canal, and the other and much the larger forms the umbilical vesicle, from which the fetus derives the most of its nourishment during the early stage of its existence.[2]

About the twentieth day after conception a small vesicle is formed toward the caudal extremity of the fetus—the allantois or urinary sac of Haeckel—which "grows out from the hindmost part of the intestinal canal; the in

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nermost portion of it afterward changes into the urinary bladder; the outer part with tts vessels forms the foundation of the placenta."[3] As has already been said, the ovum in passing through the fallopian tube receives an albuminous coating, and this with the zona pellucida is developed into a temporary structure, the primitive chorion. On its external surface villi are thrown out, the office of which is to nourish the ovum by endosmotic absorption from the mucous membrane of the uterus. As early as the twelfth day after conception the *true chorion* is formed with its villi, which dip down into the tissues of the reflexa and are enveloped by it, absorbing what is termed by Ercolani the "uterine milk." "The mammalian embryo, during the period which precedes the extension of the allantoic vessels into the cavities of the uterine walls to form the placenta, must be nourished by direct diffusion, first from the contents of the fallopian tube, and subsequently from the decidua. * * * The marked increase of bulk which takes place during the conversion of the mulberry mass into the blastodermic vesicle shows that during this epoch, relatively speaking, a large quantity of water at least and probably of nutritive matter must pass from without into the ovnm, and subsequently, though the blastoderm and embryo may for some time draw the material for their continued construction at first hand from the yolk sac or umbilical vesicle, both this and they continue probably until the allantois is formed to receive fresh material from the mother by direct diffusion."[4] "The changes which ensue from this period onward are fully known. The amnion continues to dilate (its cavity being tensely filled with amniotic fluid) till it comes very close to the chorion, from which, however, it remains separated by a layer of gelatinous tissue. The villi of the chorion in the region covered by the decidua reflexa gradually cease to be vascular, and partially atrophy, but in the region in contact with the decidua serotina increase and become more vascular and more arborescent. The former region becomes known as the chorion leve, and the latter as the chorion frondosum. The chorion frondosum together with the decidua serotina give rise to the placenta"[5]

Up to this time the embryo has been sustained by nutritious material secreted by the uterine glands, and absorbed by the villi of the chorion. Now the method is changed, and the fetal placenta, which is formed from the chorion frondosum becomes intimately blended with the maternal placenta formed from the decidua serotina and the maternal blood-vessels, and which consists of a cavity containing the maternal blood, into which the villi of the chorion penetrate. But the fetal and maternal blood do not mix, for none of the maternal blood escapes when the umbilical cord is cut, nor can the minutest injections through the fetal vessels be made to pass into the maternal vascular system, or *vice versa*. "The vessels of the mother never anastomose, nor do they come into immediate contact with those of the fetal placenta."[6]

Experiments made by Robin and M. Bonami were conducted with the most extreme care, and in summing up their conclusions they say, "Again, all the minute vascular ramuscles are so intimately connected that it is impossible to separate the vessels belonging to the mother from those peculiar to the fetus and they can only be distinguished from each other by the different colored injections. But, although the two series thus interlace, the maternal branches never communicate by their terminal extremities with those of the fetus; since the finest injections, when most carefully made, have never established a direct communication between these two orders of vessels, unless by rupture of the walls."[7]

In speaking of the maternal capillary vessels which pass into the body of the placenta, Robin further says, "Having entered the placental tissue, they dilate and communicate so largely as to form throughout the entire mass of the placenta a pool of blood, whch bathes the entire placental surface of the chorion at the point of attachment by the pedicle of each villus. The expanse of blood penetrates the fine sponge like interstices between the reticu-

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lated ramifications of the villi. But nowhere is there any direct communication between the maternal and fetal blood." [7]

"No nerves or lymphatics exist in either portion of the placenta. The cord contains no nerves, no capillaries, not even vasa vasorum, and no lymphatics." [8]

"Nor has any anatomist ever traced the passage of any nervous branches from the applied surface of the uterus, nor have nutrient arteries been, as yet at least, shown to pass from the uterus into the maternal substance of the placenta." [9]

Other authorities could be cited showing that there is absolutely no direct connection between the mother and fetus, either vascular or nervous, but it would be superfluous to do so. The function of the placenta is undoubtedly to nourish the fetus, and it does this by a process of endosmosis and exosmosis. Just here I wish to call attention to two or three points in Dr. Greenley's article. He says, "If it could be fairly elucidated that there is direct interchange of blood current between mother and child, the oxgenation of the fetal blood would be much more simplified; whether there is direct communication or not, we know that in placenta previa both mother and child are liable to be lost by hemorrhage from separation of the placenta." In such cases the mother frequently is lost from hemorrhage, but the fetus dies from asphyxia, not from hemorrhage; the asphyxia being due to the fact that the placenta is separated, and the fetal blood is cut off thereby from the necessary oxygen which is furnished through the medium of the maternal circulation. Again, the doctor says, "As to whether there is any nervous intercommunication between the mother and child, we all know that the child can be shocked through the medium of the mother. If you place a cold hand on the abdomen of the mother after the sixth month of pregnancy, you will immediately be very sensibly impressed by its movements." This is true, but the movements of the child are not due to any nervous shock received by it, but are due to uterine contractions which are produced immediately by the application of the cold hand. A nervous shock may and sometimes does produce abortion, the abortion being due, not to any influence upon the fetus, but to the cotractions of the uterus which are brought about by the influence of the shock on the nerves of the mother. The pregnant uterus is prone to contractions, so much so that uterine contractions are recognized as one of the unfailing signs of pregnancy. Ichthyosis was long since described by Sir J. Y. Simpson as an intra-uterine disease. One more question by Dr. Greenly requires answer. He says, "Again, how are syphilis and phthisis communicated to the offspring through the semen of the father?"

The semen of the father does not communicate syphilis to the fetus; the spermatozoon does not carry the syphilitic germ. The child acquires syphilis through the medium of the maternal blood, the mother herself having been previously inoculated. I am borne out in this statement by the bulk of authority among syphilographers. The bacillus tuberculosis most assuredly is not inclosed in the spermatozoon; the child inherits from either or both parents the tendency to consumption, that is, it inherits a fruitful soil for the growth of the tubercle bacilli, which must first be planted there before phthisis can develop.

So much for the vascular and nervous connection of the mother and fetus. Let us glance at the development of the fetus. As early as the first week the thoracic extremities are beginning to form, the abdominal members are present, the vertebral divisions are apparent. The heart exhibits, in its external form, a tolerably close resemblance to that in the adult; the lungs are constitued of five or six globules in which the bronchial extremities can be readily distinguished. During the seventh week the first centers of ossification appear, first on the clavicle and then on the lower jaw. At two months the forearm and the hand can be distinguished, the eyes are prominent, the nostrils are rounded and separated, the mouth is gaping, and the epidermis can be distinguished from the true skin. At ten weeks the thoracic parietes are apparent, the fingers are distinct. At the

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third month the feet are fully formed, and by the fourteenth week the abdominal plates have united at the umbilicus, the genital organs are distinct, and the maxillary processes with their soft parts have united, forming the upper lip. It will then be seen that, if the emotions of the mother ever affect the fetus so to induce deformity, this must be done at or before the precise time at which the deformed part is undergoing evolution.

That arrest of development or evolution in the fetus does occasionally take place is true, but it is equally true that the arrestment is not due to maternal impressions. The cause of arrest of development may be local or general, as injuries to the mother's abdomen, diseases of the uterus or its membrane, or from hereditary transmission of deformities.

In an essay on compound human monsters, we find these words:

"The maturely and normally developed human body was compared with the embryo. The various species of organized beings and their embryos were compared with man, and as a result we became acquainted on the one hand with the ultimate structure, composition, and the science of the human body on the other with the general facts, plans, and unity of animal organization, including all its multiform genera and species in every age. On these comprehensive views a new theory of anomalies and monstrosities was founded, viz., that of arrest and retardation of development, which is now found to explain many varieties of monstrosities, but more particularly those which should be regarded as vices of conformation, as for example, cleft formation, deficiencies, absence of parts, etc. By a careful study of the laws of development and the order in which the various organs are evolved in the embryo, it has been observed that monsters by defect or arrest of development are to a certain extent permanent embryos. The abnormal organs merely represent the primitive condition of formation as it existed at an early stage of embryonic or fetal life." [10]

The happy idea that was first suggested by the master mind of Harvey, relative to certain malformations consisting not in the substitution of an entirely new and anomalous type of structure in the malformed part, but only in the simple permanence of some of the transitory fetal types, has been reduced during the present century into one of the most certain and comprehensive and at the same time one of the most beautiful laws in teratological anatomy. The human germ in passing through its evolution represents anatomically all the types of animal life from the lowest to the highest. "The majority of educated people have never seen such a human germ, nor are they aware that it is at all different from those of other animals. They do not know that at a certain period this embryo has essentially the anatomical structure of a lancelet, later a fish, and in subsequent stages those of amphibian and mammal forms, and that in the further evolution of these mammal forms those first appear which stand lowest in the series, namely, forms allied to the beaked animals (Ornithorynchus), then those allied to pouch animals (Marsupialia), which are followed by forms most resembling apes, till at last the peculiar human form is produced as the final result. These significant facts are so little known that when incidentally mentioned they are commonly doubted or regarded as unfounded inventions." [11]

Let us suppose now that an arrest of evolution takes place at one or any of these transitory embryonic stages. The embryo remains a permanent embryo of that stage in whole or in part, possessing in all essential points the organization of the primitive condition of formation of that stage of embryonic or fetal life during which the arrest of development took place. The arrest of evolution may affect the cephalic extremity, and the woman go on to term and be delivered of a child perfectly developed in all its parts save the head (anencephalus), and here we have the resemblance which characterized the embryonic stage at which the arrest occurred. At once you have a story manufactured to suit the case; the mother has been frightened by a snake, frog, or what not, some time during her pregnancy, probably as late as the

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sixth, seventh, or eighth month, and this is accepted (even by some physicians, I am sorry to say) as proof, strong as Holy Writ, of maternal impressions upon the fetus in utero.

I delivered a woman, some years ago, of an anencephalus child. The grandmother, a very intelligent old lady, at once ascribed the deformity to the fact that the mother had been horrified at seeing a dog's brains knocked out by a blow from an ax about a month before delivery.

Again should the arrest of development affect the abdominal plates, which does not necessarily interfere with the evolution of the abdominal viscera, we have the walls of the abdomen wanting and the viscera entirely uncovered save by peritoneum and sometimes extroverted (ectopia) viscera. This also is frequently referred to maternal impressions, when in truth it has its origin in purely local causes, such as adhesion of the allantois to the chorion, and less frequently adhesions of the placenta and amnion. The arrest of development of the maxillary processes causes harelip. The bony parts may unite leaving the soft parts separated (simple harelip) or arrested development of the entire structure may obtain (cleft palate, complicated harelip).

Acephalus fetus, a very common form of malformation, is now known to result from embryonic hydrocephalus, the cerebral vesicles becoming disturbed till rupture takes place. The sides and vault of the cranium as well as the cerebral matter are consequently not formed. As before mentioned, a fact that should be particularly borne in mind is that if the impressions made upon the mother ever affect the fetus so as to induce deformity, this must necessarily be done at or before the precise time at which the deformed part is undergoing evolution. Thus we well know that as early as the third month the hands and feet are formed, and by the fourteenth week the abdominal plates have united at the umbilicus, the genital organs are distinct, and the maxillary processes with their soft parts have united, forming the upper lip. And yet, in a case of harelip, reported by Prof. Carnochan, the deformity is gravely attributed to a dentist roughly handling the mother's lip during the sixth month of pregnancy. In one of Dr. Tuke's cases the impression was also made during the sixth month of pregnancy, producing a red mark on the child's forehead, resembling a flame.

"Cases of exstrophy of the bladder, ectopia viscera, etc., are often cited as examples of some impression made on the mother's mind as late as the fourth, fifth and even sixth month, when in fact it is now positively known that the causes of this deformity, viz., adhesions of the allantois to the chorion must be operative as early as the fourth week."

Sir J. Y. Simpson long since described intra-uterine peritonitis as a "most common fetal disease." He cites a large number of cases and says, "We may be able to trace many of the malformations of the abdominal and pelvic viscera, as well as those of different other parts of the body, to different diseased actions, but particularly to inflammation occurring in some of their structures during the early stages of their embryonic development and growth."[13]

On the other hand, birth marks of fruit, flame, etc., (aneurisms by anastomosis), are undeniably the product of an excess of evolution. "The process of evolution may be excessive as well as incomplete. When excessive in certain portions of the capillaries these blood vessels, which are too small to be seen by the naked eye, now become so large as to carry red blood and to impart to the locality (if the skin) a corresponding degree of redness. This is the way marks are formed. An excess of evolution may also produce supernumerary fingers or other appendages."[14]

So much for arrest of development and its causes. Let us turn our attention for a short time to intra-uterine amputations, which are probably more frequently pointed out as the result of maternal impressions than any other congenital deformities. So high an authority as Seguin makes this statement: "Impressions will sometimes reach the fetus in its recess, cut off legs or arms, or inflict large flesh wounds before birth, inexplicable as well as

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indisputable facts."[15] It is an uncontroverted fact that all the varieties of this deformity can be shown to depend on diseases of the membranes inclosing the fetus or its appendages. Montgomery, quoted by Simpson, as far back as 1836 believed fetal amputations to be the result of the constriction of the limb at the point of separation by a ligature of organized lymph."[16] The cases described by Schaeffer and Zagorsky appear to support strongly the opinion of Montgomery, that amputation of the limbs of the fetus is in some if not in all instances the result of constriction by a cord or ligature thrown around the limb at the point of disjunction. As to the nature of the cords or bands which constitute the constricting ligatures, there seems no reason to doubt that they are formed of organized lymph, and that this lymph has been effused by inflammatory action. The view that has been taken of the disjunctive action, attributed in the foregoing remarks to the forcible and gradually increasing constriction of the bands of pseudo-membrane upon the fetal limbs, seems confirmed in no inconsiderable degree by what is observed to occasionally occur when the same kind of constriction is exercised upon any part of the fetus by the umbilical cord.

Wrisberg has delineated and very minutely described a case which is to the point in reference to constrictions by the cord: "In a deformed fetus of the fourth month the umbilical cord, on leaving the abdomen, ran first over the left shoulder and around the back of the neck, and then came to encircle completely the right upper extremity below the shoulder. To all these different parts it was morbidly adherent, and at the point where it encircled the right arm it imbedded itself deeply in the adjacent soft parts; in its subsequent course the cord, after running again over the left shoulder, returned a second time to the right arm and crossed over it above the elbow, impressing another furrow or indentation upon it at the point of contact. In this case we have an example of the process which produces a spontaneous amputation of the limbs of the fetus going on at two different points in the same arm, and it differs from instances previously detailed in this respect only, that the constricting and dividing agent was not as in them a band of false membrane, but a portion of the umbilical cord."[17]

These views were recognized and maintained by Montgomery, Wrisberg, St. Hilaire, and Simpson, as the solution of the problem of intra-uterine amputations more than fifty years ago, since which time the literature of the subject has been greatly enlarged, until now there remains not the shadow of a doubt that these malformations are dependent upon some pathological condition of the membranes surrounding the fetus, or of the fetus itself. Very frequently nature makes an attempt at restoration, and rudimentary toes, fingers, etc., may be formed upon the amputated extremities. It is well known that this restoration is in ratio to the scale of animal life—the lower the scale the easier and more certainly this restoration is accomplished, and *vice versa*; therefore the earlier the period of embryonic life at which the amputation takes place the more certainly will there be an effort to restore the parts.

The genesis of double monsters is capable of as ready solution as that of amputations. "That they are not the results of an accidental coalition of twins, at some uncertain period of the embryonic development, neither do they result from a double egg; that is to say, an egg containing two yolks inclosed in one capsule. They are invariably the product of a single ovum, with a single vitellus and vitelline membrane, upon which a double cicatricula or two primitive traces are developed. The several forms of double malformation, the degree of duplicity, the character and extent of the fusion, all result from the proximity and relative positions of the neural axis of two more or less complete primitive traces, developed on the vitelline membrane of a single ovum."[18]

This is not a theoretical opinion; it is an established fact, determined by direct and repeated observation and research instituted by different embryologists. It furnishes a satisfactory explanation of the several laws which

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have been discovered to preside over the development of double monsters, viz., the law of homologous union, the law of unity of sex, and the less certainly developed law of the transposition of viscera. Homologous union and the unity of sex in duplex formations are positive laws. Twins, having a common chorion, and duplex monster have a similar origin, viz., the development cicatricula on the blastodermic membrane of a single ovum. The result of normal twins or double monster depends entirely upon the nearness of the two primitive traces to each other.

Geoffroy St. Hilaire long since showed that monsters could be produced artificially, and later, M. Dareste has, by various experiments succeeded in submitting to direct observation the evolution of most of the types of simple monstrosity. "When eggs are submitted to incubation, the conditions of which differ from those of ordinary incubation, the evolution is disturbed and there appear anomalies and monstrosities." M. Dareste has employed four processes with this end: a vertical position of the eggs, diminution of the porosity of the shell by coating more or less impermeable to air, contact of the eggs with a source of heat at a point near the cicatricula but not coinciding with it; lastly, the production of temperatures slightly above or below that of normal incubation. By the first two processes the evolution is often modified; by the other two it always is. It is farther stated, as one of the most general results obtained, "that monstrosities have always their origin in that period of embryonic life when their embryo is entirely formed of homogeneous blasterma."[17]

The arrest of development is the general process of the formation of simple monstrosities. It acts, first, directly on certain organs; then the change of these organs involves consecutively a certain number of changes in other organs, changes characterized by arrest of development, fusion of similar parts, changes of position, etc.

"The arrest of development at the commencement of evolution affects the embryo itself. It here produces the monsters inexactly known as 'omphalosities.' These, the most imperfect of all, have only an ephemeral existence when they have not been developed in the same vitellus with a well-formed embryo, the head of which serves as a motor for the circulation of the malformed embryo, which is nearly always without this organ. The formation of simple autosite monsters is through a partial or total arrest of development of the amnion or vascular area. The arrest of development of the whole of the amnion causes very various monstrosities, which are sometimes produced separately, and are sometimes associated in greater or less numbers. Such are celosomia or eventration, exencephalon or cerebral hernia, and various incurvations of the vertebral column and deviations of organs. * * * The double monsters among birds never arise (as has been supposed) from the union of two vitelli originally distinct, not even from the union of two embryos proceeding from two cicatriculæ existing in one vitellus. In a double monster there are two embryos developed from a single cicatricula and enveloped by the same amnion. The existence of two hearts in double-chested monsters is due to two different causes. When the heads are distinct, each heart belongs properly to one of the embryos. On the other hand, when the heads are united together, the two halves of each heart belong to each embryo, each cardiac blastema of one of the subjects uniting with the corresponding cardiac blastema of the other." M. Dareste remarks, in conclusion, "that though his teratogenic researches have been limited to a single species, that they have a much more extensive reference. Indeed, the teratological types and processes of formation which he has cited in birds are exactly the same which are observed in mammifers and fishes. This idenity of teratological formations in mammifers, birds, and fishes, is a necessary consequence of the unity of type in vertebrated animals."[17]

The inferences and facts to be drawn from the foregoing review are:

a. That during the embryonic existence certain parts may be hindered or arrested in

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their development, while the other organs not directly connected with them may continue their evolution and become fully developed.

b. That ectopia viscera of the abdomen, spina bifida, cleft palate, hare-lip, webbed fingers and toes, etc., are only evidence of arrested development of embryonic abdominal, spinal, and maxillary processes, or, in the case of webbed extremities, the continuation of the embryonic hand or foot of the second month.

c. That any agency causing arrest of development of any portion of the fetus must necessarily operate prior to the evolution of the part.

d. That the cause of the arrested development may be local or general, as injuries to mother's abdomen, diseases of the uterus or its membranes, hereditary transmission of deformity.

e. That excessive development of parts of the fetus may obtain, resulting in nevi, aneurisms by anastomosis, supernumerary fingers and toes, etc.

f. That intra-uterine amputations are the results of amniotic bands, placentral adhesions, fracture, or from constriction by a loop of the umbilical cord.

g. That amniotic bands or placental adhesions result from inflammation of the uterus, its decidua, or inflammatory diseases of the fetus.

h. That the false membranes causing these amputations may be afterward absorbed, as also the amputated extremity.

i. That so-called double monsters are the result of the development of a double cicatricula on the blastodermic membrane of a single ovum.

j. That twins with a common chorion also result from the development of a double cicatricula on the blastodermic membrane of a single ovum.

k. That in either case there is always unity of sex.

l. That the nearness of the primitive traces to each other determines whether the impregnation will result in separate twins or a double monster.

m. That in twins with single chorion or anastomosis of placental vessels, one fetus may become perfectly formed while the other becomes monstrous.

n. That the development of the abnormality in such cases depends on local anatomical causes, and is governed by definite laws.

o. That every known form of malformation in the human race has its analogue in the lower animals, birds, fishes, and reptiles.

p. That arrest of development at any of the stages of embryonic life results, in part or in whole, in a permanent embryo of the stage at which the arrest took place.

From the consideration of all these facts, the subject is narrowed down to the following questions, viz:

Can the mother's mind produce the diseases of the uterus or its membranes which result in false bands or placental adhesions which cause amputations and other deformities?

Can such impressions cause the umbilical cord to encircle and amputate a limb, or cause the death of the fetus?

Can such impressions reach and act upon the newly-impregnated ovum so as to cause the double cicatricula to approach each other so closely as to result in union and double monsters?

Is it possible for maternal influence to destroy or deform one fetus *in utero*, while another inclosed in the same membranes is uninjured?

A large per cent of congenital deformities being shown to arise from local and other causes which can have no connection with maternal influence, is it probable that at another time exactly the same deformity is produced by maternal impressions?

Is it reasonable that an intra-uterine amputation will be caused in one case by an amniotic band, while in another it may be caused by maternal impressions?

When it is remembered that no nervous connection exists between the embryo and the mother, that there is no distinct blood com-

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munication, that the mother's mind can have no influence in causing pathological conditions which have been shown to be the cause of the malformation, that during the first week of fetal life the ovum is surrounded by anatomical conditions precluding maternal influence, whereas it has been shown that the vast majority of malformations have their origin in that period of embryonic life in which the ovum is still homogeneous blastema; when all these facts are considered, can any one believe that the mother's mind can change the conformation of the fetus *in utero*?

"If a man choose to maintain that a fossil oyster shell, in spite of its correspondence down to the very minutest particular with that of an oyster fresh taken from the sea, was never tenanted by a living oyster, but is a mineral concretion, there is no demonstrating his error. All that can be done is to show him that by a parity of reasoning he is bound to admit that a heap of oyster shells outside a fishmonger's door may also be sports of nature, and that a mutton bone in a dust bin may have had the like origin."[28]

I have purposely refrained from occupying valuable space by the recital of cases of so-called maternal impressions.

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ANAESTHETICS.

The discussion of the relative merits of chlorform and ether still goes on, and unfortunately, is not always conducted in a spirit of toleration.

Truly in the consideration of purely scientific questions, the proper solution of which may involve human life, all prejudice should be laid aside. Dr. Hunter McGuire,an earnest and able worker in the surgical world, very pointedly says:—"Slowly but surely we are approaching nearer and nearer the truth about anesthetics. Already those who are not wedded to one agent, decline to give chloroform to very feeble anemic people, or those suffering from great shock or loss of blood. They hesitate also to give it where the heart is funtionally weak, or the patient is badly frightened. For these cases ether is safer. They deciine to give ether when there is cardiac, renal, or pulmonary trouble, or in operations about the face and throat, or when they have reason to suspect calcification or other degeneration about the blood vessels of the brain."

Where the heart is weak, and in fact in nearly all cases I believe an advantage is gained by administering internally a reasonably large dose of whisky and digitalis, a few minutes prior to giving the chloroform, the stomach having been denied food for some hours.

The question of fright is a very serious one

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and I think we are almost justified in suspecting in some fatal cases fever rather than chloroform as being the cause of death.

In 1873 at the City Hospital, St. Louis, a patient fairly strong and robust was to be operated upon by Dr. Lankford, for some trivial trouble about the face,a painful but not dangerous operation. He walked bravely into the amphitheatre but as he was placed upon the table it was quite apparent that he was profoundly frightened.

Anesthetization was carefully commenced but after two or three whiffs of chloroform the patient was dead; no difficult or stentorous breathing, nothing to suggest danger, save an unearthly pallor, and all the evidences of intense fear. Death was as instantaneous as though by lightning.

Post-mortem examination revealed no lesion of any internal organ except that the brain was completely blanched by the fear(?) that had whitened his face before death.

Surely a goodly drink of good whisky a half hour before the attempted operation would have removed all fear from the patient and braced him up against the depressing effects of his sorroundings and the result might have been different. The cause of death was fright rather than chloroform. Appropos to this point, Dr. S. V. D. Hill, of Macon, Miss. Ex-President of the State Medical Society, and the State Board of Health, related to me a case a few years ago of a timid African, who was placed upon the operating table for an amputation of a finger (I think it was.) He was examined and no organic lesion precluding the administration of chloroform was discovered.

He showed great lack of courage while the preliminaries for the operation were being perfected. He took his position upon the table and before the chloroform bottle was even opened it was discovered that he was dead—literally "frightened to death." Had he received a single inspiration of chloroform it would have been charged with his death. The number of sins thus unjustly credited to anesthetics may never be known.

I. N. Love.

The Neurotic with Indigestion and Lithiasis.

The neurotic with indigestion and lithiasis, is the caption of an article by Dr. J. Milner Fothergiel, of London, contributed to the N. Y. *Medical Record* January number, in which this generally very acute observer and certainly always and instructive writer describes a class of cases quite as familiar to physicians on this side of the water, as to the distinguished London physician, but with somewhat different features.

From Dr. Fothergill's description it appears as though only the "lean lank" varieties of this morbid species go abroad. "It is a malady "the author says," *par excellence*, of town dwellers. It belongs to the individual of "lean flank" he says.

This is not in accord with our observation and it is probable that other neurologists could sustain the counter statement that American neurotics are not all lean of flank. On the contrary it is not uncommon in our observation to see quite corpulent and obese individuals very nervous and dyspeptic—the nervousness and dyspepsia increasing sometimes with the increase of adipose tissue. It is sometimes the fact that the nerve energies of the system seem to be robbed by the force diverting process of adipose deposition. In asylums for the insane certain forms of mental desrangement are not incombatale with growth in flesh, as it is erroneously called, which however is not growth in flesh at all, but in fat, of which water is a large constituent element—and certain hysterical women are very fleshy in this sense.

A form of flatulent dyspepsia due to defective pneumogastric and vaso-motor innervation, probably the result of central neuratrophia exits in these cases as we see it in cyclical albuminuria for example. Digestion is finally performed laboriously, tardily and painfully in the stomach and with much accompanying gastro intestinal flatus.

The robust, bulky country squire with his hands and feet deformed and unsightly from gout, is not healthy and he or the wife like

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him may become in our observation just as nervous as his counterpart in the lean, spare, dyspeptic town dwellers. There are a good many large nervous men and women of rheumatic antecedents and ancestry in the western country who suffer keenly and are as difficult to successfully treat as the leaner type of neurotic.

The dwellers in our large cities, especially those of the Eastern seaboard are those who mostly go abroad for treatment and they naturally fall into the hands of leading London physicians or those of Europe.

It is the lean neurotic who loves to travel and who can not stay at home, whose morbidly misdirected nervous energies are spent in seeking constant excitement and diversion, followed by prostration, but the other type fattens from the indolence of nervous inaction when there is an inherent family tendency to fat, enforced by the inordinate fatigue or pain which ordinarily sustained effort induces. The disagreeable sensations they so often feel, the distressingly nervous feelings they endure, restrain them, and with sluggish bowels and weakened skin and kidneys, they increase in or maintain their flesh, notwithstanding the kidneys may contract and uric acid may be formed in the blood, and rheumatic and cardiac symptoms may appear, with death closing the scene upon a body as corpulent as Falstaff's and never known to have been lean. With this exception Miller Fothergill's excellent off hand description of the neurotic with indigestion and lithiasis is an exceedingly true picture. But leanness is no necessary part of this neurosis as it is not of the ancestral gout from which it is so often descended.

C. H. HUGHES.

THE RELATIONS OF DRUGGISTS AND PHYSICIANS.

There is much being said upon this question in the pharmaceutical as well as the medical journals which come to our table.

Unquestionably the guild of pharmacy is closely linked to that of medicine. Time was when they were one, and even now in the rural districts and many of the smaller towns the doctor is his own pharmacist. In the cities, as a matter of convenience and self interest, the separation has been an accomplished fact for many years.

The position they occupy one to the other is a delicate one, requiring a refined and discriminating judgment on the part of both, a thorough appreciation of the unwritten law which governs gentlemen.

The druggist should have a thorough understanding of how to prepare and put in a form to be practically applied the medicines (they being the necessary tools of the medical attendants for the performance of certain work) to combat the disease of the patient under the doctor's care.

The doctor, of course, should be qualified, and when he assumes charge of a patient he should see to it that the proper remedies are brought to bear upon the disease. If he does not furnish the medicine which he knows can be depended upon to perform the work, but prefers as a matter of convenience to himself to delegate that duty to a middleman, he should make it his business as it is his duty (to himself as well as humanity,) to know that the furnisher of his medicament is sober, reliable, and in every way trustworthy, and the employer of competent help in his work.

It goes without saying that when a physician permits his written advice to go into the hands of a pharmacist, that the latter assumes a responsibility to physician and patient alike, and should neither neglect the one nor the other.

Long established drug stores in given neighborhoods should be encouraged by being preferred.

The longer a pharmacist has been engaged in executing the written instruction of a physician, the more familiar he is with his needs and necessities his particular formularies, his favorite combinations, the better is the the work likely to be performed, the more satisfactory the result to all concerned.

It is but right and proper that any physician,in fact it is better for every physician, to

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have, if the conditions will permit, his favorite druggist to compound the prescriptions he may write, and if any one be low enough to suggest a dishonest collusion between druggist and doctor, he should be treated with the contempt he deserves. In the city of New York, the majority of the physicians send all of their special prescriptions to a few long established pharmacies in the central part of the city. One establishment alone on Fifth avenue employs upwards of fifty skilled pharmacists, paying them large salaries, and the doctor who sends a prescription there to be filled has an assurance that he and his patient are safe from the dangers of the "three dollar-a-week" bottle washing drug clerk, and the speculating tradesman who has been allured into the establishing of a new drug store where it is not needed by the enormous profits popularly supposed to pertain to the business.

In Paris the great Germain See who has done so much good practical work in a therapeutic direction has all of his prescriptions filled at one particular place, by one particular chemist (Wurz), who has worked and experimented with him and for him for many years. A patient in St. Louis who consulted him for asthma last year now receives his advice by mail, and the eminent physician insists upon his chemist in Paris shipping the medicine to his patient here. More than likely much of the great man's success in treating disease lies in the fact that he sees to it that his patients receive the medicine which he orders for them.

So far as the matter of counter prescribing goes, that regulates itself. If a man engaged in the drug business is competent to treat disease he has a right to do so if applied to for that purpose. If he is not competent, and yet essays to do so, he runs the same risks that the incompetent physician does. If the people call upon him for adhesive plaster for a cut—a linament for a bruise, a perambulating pill for constipation, exercising proper discretion, he should respond favorably, if he desires so to do. If the-m-asses want cheap relief let them have it.

As regards the question of physicians carrying their own medicines that is altogether a matter of convenience. In these days of elegant triturates, granules, parvules, etc., one can well supply himself with many drugs for emergency use and thus be of much greater practical service to his patient, if so, it then becomes his duty to do it. If he be just begining in practice it might be to his convenience and interest to furnish a large number of drugs to his patients, this course would increase his work and might diminish the number of supernumerary drug stores. The time will never come however, when the earnest, skillful, conscientious pharmacist will have become superfluous. Pharmacy will ever be the hand maid of medicine.

I. N. Love.

Abdominal Section for Ruptured Typhoid Ulcer.

Dr. R. B. Bonlecon, Troy, New York, reports a case, *Jour. Amer. Med. Assn.*, in which he opened the abdominal cavity, and closed by a suture, a perforation of the appendix near its base, and one of the ileum about ten inches from the colon. Unfortunately, forty-eight hours had elapsed after the occurrence of the first perforation, and peritonitis had set in.

The patient was extremely low at the time of the operation, and died before recovering from the anesthetic. The journal gives in this connection a case published by Luecke of Strassburg, in the *Deutsche Zeitschrift f. Chirurgie.* of Nov. 30, 1887, in which the patient began to collapse suddenly after drinking a glass of cold beer. Luecke's diagnosis was perforation of the intestine. Kussmaul advised an operation which was performed by Luecke on April 24, 1887, but the date of the attack is not given. On section of the peritoneum a quantity of pus mixed with flocculi of lymph, but containing no feces, and a small quantity of gas escaped. A drainage tube carried into Douglas' sac drew off a quantity of pus, so that, the whole amount of pus removed was about 500 ccm. No perforation

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was found. The abdominal cavity was washed and closed. Kussmaul and Luecke agreed in the diagnosis, that perforation had taken place in a small ulcer, through which a minimum amount of intestinal contents had escaped, setting up acute purulent peritonitis; that the site of the perforation was probably in the right hypochondrium; and that the perforation had soon closed. But a localized peritonitis of slow development set in. On June 30, an incision was made parellel with the free border of the ribs on the right side, through which the upper surface of the liver could be felt, and about 3000 ccm. of pus evacuated. A drainage tube was inserted and the wound dressed with iodoform gauze.

Although we know of no case of perforation of the intestine in typhoid fever, in which the patient recovered after an abdominal section; the result with Lucke's patient certainly encourages us to believe that in selected cases it may yet be proven that life can be saved by surgical interference.

The instances in which this interference is justifiable are rare. The per cent of deaths from perforation is small; the difficulties in the way of making a positive diagnosis are great; and the number of cases in which a positive diagnosis is made, that are free from other complications that contraindicate interference are very few.

When delirium, carphologia, sub-sultus tendinum, and other symptoms show a profound involvement of the nervous system; when the patient's strength has been wasted by fever; when pneumonia, pleurisy or other inflammatory complications exist at the time the perforation takes place; the fact that the patient will die any way does not justify the surgeon in hastening the result by opening the abdominal cavity.

The cases that offer the best prospect for good results are those in which the disease assumes a mild type, and those in which the perforation takes place during convalescence.

EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

That there are now and then unfortunately (for tnemselves) born into the world strong masculine women devoid of domestic tastes and maternal longings, all will admit. George Eliots, George Sands and such as they are fortunately the exception,and should not society permit them to wrestle with the inconveniences of their surroundings and not overturn the established order of things for their special benefit?

In an address to the women of America Dewitt Talmage forcibly says:

"O woman, stay a woman! You belong to a very respectable sex.

The second figure of the human race was a woman and sometimes a second edition of a volume is the first edition improved and corrected. Do not try to cross over. If you do, you will be a failure as a woman, and only a non-descript of a man. We already have enough intellectual and moral bankrupts in our sex without your coming over to make worse the deficit."

While on this subject I cannot refrain from quoting, the rhapsodical reference to female membership in the St. Louis Medical Society, by the retiring President, the venerable,honorable and always honest Dr. S. Pollak, viz: "I cannot close this already too lengthy address without making an earnest and emphatic appeal in behalf of women physicians for admission as members of this society. This is the only large city in the Union, where objections have been made to their membership. These objections are not tenable, they are repugnant to the spirit of an enlightened and liberal age, and in direct contradiction of the proverbial chivalry and courtesy of our profession. A women physician is more in her sphere at the bedside of an invalid mother or her child, than a man. They have proven themselves most worthy members of the most prominent medical societies in the land, able and modest in discussion, happy and instruc-

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tive in their contributions with their pen, ingenious and practical in their suggestions.

They are much sought after a every enlightlened community, whether they are members of a society or not.

Remember their inestimable value in all emergencies of either piece or war.

Lut us glory in woman membership of this society. We honor ourselves by honoring her, just as we rejoice and feel only happy in her companionship through life."

Possibly President Pollak is right. We may well ask ourselves whether the growing good of the world is best subserved when woman enters the arena of arduous active life outside the sacred precincts of the home, mingling with the vulgar herd in factories, stores, counting houses, the professions, the forum, entering into competition with male bread-winners, joining their trades union and social organizations.'

Will matrimony and love be encouraged by educating our daughters to love the world, rather than the domestic life, to be manly, rather than womanly.

The practitioner of medicine in these days of elegant pharmaceutical preparations who prefers to give quinine and other disagreeable drugs in purity, for fear some may think he is catering in the direction of homeopathy, deserves desertion at the hands of his patients, and he will surely get what he deserves. If he does not soon recognize the fact that "the world do more," and try to keep apace with it he will find himself as "idle as a painted ship upon a painted ocean."

A girl out west accidentally swallowed a trade dollar, a few months ago. Her life was at first despaired of; but after some six weeks' treatment and the use of a powerful specific for trade dollars, a number of red sores broke out all over her body, and, when these were opened, a copper cent was found in each. At the last report eighty-four cents had been removed in this manner, and her physician was hopeful of recovering the whole amount swallowed, perhaps with interest.—*Phil. Med. and Surg. Reporter.*

The *Reporter* has been misinformed. In the generous West, no doctor would be asked to work six weeks for eighty-four cents, and if he were, he would certainly refuse to work so cheaply. The girl was immediately taken to Philadelphia, and the first doctor consulted promptly performed gastrotomy and secured the dollar, feeling amply repaid for his labor, remarking, that there was nothing in the medical or surgical line he would not willingly do for a dollar. The money was *saved* and the maiden was *cured* of swallowing coins—she died.

It is gratifying to know that so much attention is being given by the profession to the subject of inebriety; it is well worth our most profound study.

The president of the English Society for the Study of Inebriety, Dr. Norman Kerr, gave the first course of medical lectures on the Disease of Inebriety and its treatment, in the hall of the London Medical Society, beginning Jan. 12, 1888. Dr. T. D. Crothers, of Hartford, Conn., was invited to deliver two lectures on the same topic, before the Albany Medical College, Jan. 24 and 25, 1888. These are the first medical lectures on inebriety, and the first efforts to present this subject in connected detail, by medical men, from a purely scientific standpoint.

The habit of reading books and journals and appropriating that which is good, (lamenting wisely the fact that in order to get the good grain so much chaff must be waded through) and never contributing to the general fund of information, selfishly absorbing other mens' ideas like a sponge takes water is a bad one, and should be broken.

The following is an excellent tonic after chronic malaria, viz:

Take six lemons and slice them into a pint of water, (seeds, peeling and all contents) boil down to one half a pint, and add a half pint of good whiskey, keep in a glass bottle and give two tablespoonfuls properly diluted before meals to an adult. Reduce according to age for children.

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The medical profession has great reason to feel pride in the record it has made. Every member of it whose liver and digestion are in proper condition ought to love his calling and appreciate his co-workers. Whenever you meet an M. D., snarling and growling against his fellows you can safety put him down on your list as being inherently wrong, selfish and soured from having mingled too much with himself and and not enough with his brethren.

Dr. Benjamin Colting of Massachusetts has been sixty years in medical harness, being now over eighty years of age. That he is growing old gracefully goes without saying, after reading the following graceful words from his pen: viz. The profession demands of its members, throughout their whole career, a cheerful willingness to devote more than half their time and labor to the fitful needs of illness and penury, without thanks or hope of pecuniary reward. It even expects them to become, as it were, upper servants to the rich, and attendants-of-all-work to the helpless poor. It is a calling often to be tired by, but never to be tired of. It offers little promise to seekers of personal ease, or expectant of large possessions. Nevertheless, its compensations are neither few nor small; and its brotherhood is not among the least of these.

Quæ cum ita sint—in spite of the initial famine incident to the profession, and the inevitably slow advancement in it—a patient's confidence, as said an eminent professor, being the hardest thing to acquire, and the easiest thing to lose; in spite of its privations and hard work, in spite of its annoyances and trials, in spite of its reputed jealouses and quarrelsome habits (which, after much and long observation, I can confidently aver are much less than among pure scientists and literary men, or in other professions, restrained as medical men are by a reasonable etequette,) in spite of its vexations and unrequiied efforts in spite of its thankless patients and wilful maligners, in spite of defections, when and where least expected, unexplained and unexplainable, in spite of all these drawbacks, so much and so often complained of, but no greater, probably, than in other callings—I am fully persuaded that even the life of a physician is worth living."

In this issue we reproduce an original article from the pen of Dr. Arch. Dixon, on "Arrest of Evolution versus Material Impressions", published in the *Amer. Prac. and News*, Dec 10, 1887. Dr. Dixon's investigations of this subject have been thorough and exhaustive, and his conclusions so well drawn that this article should form a part of every physician's library of reference.

THE opening article in *The American Magazine* for February is by the well-known naturalist, C. F. Holder. He takes his readers into "The Heart of the Sierra Madre."

In the Timely Topics department a correspondent attempts to show that the American farmer will eventually become the American statesman; while another writer offers a plea for diplomatic training. The Pulpit contains articles by Rev. Thos. Armitage and Rev. S. B. Rossiter. Jenny June, in her department of Household Art, discusses "Table Wares and their Uses." The valuable health hints given in The Calender of Health by Dr. Hutchinson are continued. New humorous anecdotes make up the Portfolio.

A NEW GASOGENOUS BACILLUS.—During the past year, M. Arloing has investigated the characters of a new bacillus having the property of generating gas within the tissues it attacks. M. Gayet noticed on puncturing the anterior chamber of the eye of a patient suffering from an injury, that gas escaped, as well as a rusty coloured fluid. This sanies was submitted to M. Arloing, and found not to contain the bacillus of gangrenous septicemia—a gas generating micro-organism. The new bacillus has a length of .0025 to .0060mm., occurs in isolated rods or in chains, and has no spores. It not only differs from the septic vibrio in morphology, but also in its evolution, developing in the shape of small tufts; in the peritoneum the forms of the bacilli are very short and never serpiginous. The new

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microbe does not act on albuminoids as well as hydrocarbons, but on the latter only. Inoculation of the fresh fluid only gave positive results in rats and guinea-pigs, rabbits being unaffected; whereas the septic bacillus evolves in the connective tissue of any domestic animal save the ox. The dried fluid loses its virulence. In order to restore it, it suffices to place the dried preparation in water acidulated with lactic acid—just as is required to restore the activity of the virus of symptomatic charbon.—*Lancet.*

CORRESPONDENCE.

NEW YORK LETTER.

New York, Feb., 1888.

EDITOR REVIEW: The subject of quarantine has been reopened by the adoption in the Albany legislature of a resolution calling upon the Health officer to render his balance for the past two years. He has accordingly submitted his figures. His annual receipts have averaged about fifty thousand dollars and his annual expenditures about twenty-one thousand. It, therefore, follows that his annual salary is thirty thousand.

This is too good "pickings" for any political position. It means that politicians, rather than general public interest will manage the office. The present incumbent has done as well as he could under the circumstances, but the fault lies further back. The time is probably not far distant when the national government will assume control of the whole matter, and station at quarantine some competent officer, whose tenure of office will not depend on the beck and nod of those high in party councils. Each of the two leading political hosts is calling the other black about the affair, but the present dissatisfaction comes from an inherently bad system.

The Alumni Association of the University Medical College, held its annual meeting last night, at Delmonico's. No especially new plans were outlined for the future, except that a closer association is looked forward to, of the medical with the academical department. Mayor Hewitt, one of the guests of the evening, made an optimistic speech, in which he declared the population of the city to be as benevolent and public spirited as any on the face of the earth. He called attention to the present state of efficiency of the Health Department, from which politics have in a great measure been weeded out.

The Hospital for the Ruptured and Crippled narrowly escaped destruction by fire a few days since. The alarm was given in time to safely remove one hundred and eighty-five crippled children, and the damage was confined to one wing of the building.

An epidemic of smallpox has broken out in Brooklyn, starting in some lodging houses. Some fifty or sixty cases are already reported. Only one or two isolated cases have appeared in our city, but the vast amount of travel between the two places has put the authorities on the alert.

The increase of the appropriation for the maintainance of the city's asylums will enable Dr. McDonald, the physician in charge, to carry out some long contemplated reforms. One attendant will have the care of ten patients, instead of fourteen as formerly. New accommodations will be provided for nurses, and thus those for patients correspondingly increased. The wages of attendants will be raised, and many improvements made in the cooking departments of the various institutions. Two female physicians have been assigned to staff duty.

The assistant physicians will, hereafter, be paid at the rate of $300 per annum for juniors and for seniors $400 to $1500, depending on length of service. An effort will be made to restrict the incumbents of these positions to those who have had previous hospital experience.

Our artistic circles have been in raptures for the last few weeks over the marvelous piano performances of the boy-wonder, Joseph Hoffman. The Society for the Prevention of Cruelty to Children thinks he is being overworked, and that such a public career as he is, for the time, being forced into will work permanent injury to his health and immature

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nervous system. It has accordingly asked the mayor to revoke the boy's license. The latter's manager rejoins that his *protege* is perfectly well, is being properly cared for, and is not overworked. The matter is not yet decided.

Nothing especially new in professional circles of late. At the last meeting of the Pathological Society, Dr. W. B. James gave a demonstration of the malarial bacillus, the "plasmodium".

At the recent County Medical Society, meeting, Dr. Chas. McBurney read a paper on "External Perineal Urethrotomy as a Prevention of Complications after Operations upon the Urethra." It was discussed by Drs. Bangs, Otis, Gerster, Abbe, and others.

Dr. A. D. Rockwell has been appointed Professor of Electro-Therapeutics at the Post Graduate Medical College.

Dr. A. Caille recently read an interesting paper on "Prophylaxis in Diphtheria". He thought that unhealthy nasal and oral cavities might harbor the microbes of this dread disease. He believes that particular attention should be paid to the condition of the teeth, and that at regular intervals the mouth should be thoroughly rinsed with solutions of potassium chlorate(3 per cent),Labarraques fluid (5 per cent) or borax in water, (saturated). The borax solution could also be used in nasal catarrh. He had tried these precautions with certain children whom he knew to be especially liable to diphtheria, and while they had severe tonsillitis since, they never had a recurrence of true diphtheria, although directly exposed to the disease.

J. E. N.

ANTIPYRIN.

DULUTH, MINN., Jan. 15, 1888.

EDITOR REVIEW. As the medical and therapeutical properties of antipyrin have been undergoing considerable discussion of late in the columns of the REVIEW, and as I have had quite a large experience in the use of the drug, running back through a period of three years, I thought it might not be out of place to relate it in your columns.

I have administered antipyrin in more than one hundred and fifty cases of typhoid fever, and have never, in a single instance, met with such untoward results as described in the article from the pen of Dr. Mansfield, WEEKLY REVIEW, Dec. 17, 1887, but, on the contrary, they have been very satisfactory.

I have as yet to see the first case of collapse following the administration of antipyrin, while, on the other hand, I think there are cases in which collapse might follow. But it is not claimed that the drug is adaptable to all conditions found in typhoid or other fevers in which high temperature is a factor. He would be a very indiscreet physician indeed who would administer antipyrin, quinine, aconite, or any other powerful drug in which the symptoms pointed to an intrinsic tendency of the disease toward collapse. There is not the least doubt in my mind but that collapse has followed in cases in which antipyrin is administered; but to say that the collapse was due to administration of this drug in any particular case I imagine might not be so easy; as collapse, as we all know, does occur in cases in which no drug whatever has been administered. It has been my habit to give it in doses of ten or twelve grains repeated every hour until three or four doses have been given, or the fever reduced to normal or in the neighborhood of normal, as the case required. Usually twenty or thirty grains given in doses of ten grains each, just before noon, and again repeated at 8 or 9 P. M., will be sufficient to prevent any considerable rise of the temperature during the twenty-four hours. I have also noted a less degree of delirium in cases in which the drug was used than in cases treated by other antipyretics. This may be due to the increased elimination of urea which is said to take place during the administration of the drug. The mortality in my cases has been extremely low, being but two per cent. This low mortality rate may be due to a certain extent to the less serious nature of the disease in this climate. However, I have been informed that the death rate in

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hospital practice here has been from nine to to ten per cent for the past season. I have recently used antipyrin in a case of erysipelas, following amputation of forearm, in which the temperature ran up to 105° F. Ten grains given at one dose was sufficient to reduce the temperature to 99°F. Notwithstanding the patient had also a compound fracture of base of skull, the result of a railroad accident, his recovery was complete and rapid. I have used it in other cases of erysipelas, scarlet fever, acute rheumatism and neuralgia, with good results. Antipyrin, in my humble opinion, has come to stay.

W. H. MAGIE.

ANTIPYRIN AGAIN.

WINFIELD, ARK. Jan. 23, 1888.

EDITOR REVIEW.—I see that a few of your many readers have but little use for the great antipyretic, antipyrin. They seem to have had some little ill luck with it in typhoid fever; and owing to this they have no use, or but little at any rate for it. If these doctors were fully up with therapeutical agents, and would pay close attention to such profound investigators as, Prof. Dujardin-Beaumetz and Germain Seé, as well as hundreds of honest reports from physicians all over the world, they would be better qualified to dispute the usefulness of the drug.

If we are to throw aside a drug just because we have had an ill effect in a few cases, we would soon be out of any of the potent ones, to use.

Look at aconite, gelseminum, tartar emetic, calomel, and opium. See what mischief has been wrought by their indiscriminate use.

Who is there that has not seen bad effects from some of these drugs. I would like to see the drug that is of any true benefit to mankind in the treatment of disease, but that has at times under certain circumstances and conditions done something that we were not pleased with.

I have closely watched the reports for three years on antipyrin; as well as clinically, to see for myself what it will do. It is true we must be very careful in its administration; too much will not do. We are to watch the fever; closely, if used for that, and be guarded by the fall of temperature.

I had an attack of typhoid fever in Oct. 1887, I took antipyrin and closely watched the effect of the drug on myself, and of all the drugs I ever took in fevers, it certainly is par excellence. The burning sensation due to high fevers; headache, that makes one feel so very bad, and aching of the back and limbs gives way to a pleasant sweet feeling. A cool sensation is experienced in the region of the heat centers of the brain, a moist feeling comes over the whole body and instead of a terrible wakeful condition(which is the case with me in high fevers) a sweet easy sleep is produced, and the dreadful thirst that burns us so much is lessened.

Likewise I have tried it in colds when there was dryness of the nose and throat with fever and dull headache and cough,with the happiest results. If physicians would be more careful in their reports of the use of new drugs much more good would be the outcome, and we would not have the remorse of having been too fast about the matter.

Without study and strict attention to our profession, we will be continually making great blunders with our patients and with drugs.

Respectfully,
CHEVER BEVILL.

THE GEORGIA MEDICAL SOCIETY.

SAVANNAH, GA., Jan. 1888.

EDITOR REVIEW.—At the annual meeting of the Georgia Medical Society, held January 3, 1888, the following resolution was unanimously carried:

Resolved, That the Corresponding Secretary enter into correspondence with the medical journals of the country in order to enlist their influence in support of the movement to remove the import duties from all medical and surgical instruments and appliances, including those used in the diagnosis as well as treatment of disease, so that they may be

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furnished to those needing them at the lowest possible price.

In compliance with the above resolution, I wish to solicit your earnest attention and a notice in your publication, which will claim the attention of your readers, hoping that your country readers, especially, will appreciate the truth and importance of our proceedings.

Perhaps the statement of a few facts will assist the reader in realizing the extent of the grievance and the justice of the plea for which we ask co-operation.

1st. Physicians are at the mercy of instrument makers in regard to price, make and quality of finish, because of the lack of sufficient competition.

2nd. The price of instruments made in this country is out of proportion to that paid for similar instruments on the Continent of Europe.

3rd. Surgical instruments and appliances are so costly that but few doctors entering the profession can provide themselves with an outfit adequate to carry on a general practice. At present prices it is impossible for a country physician's income to sustain his investing in costly instruments, and as a result many simple cases, such as retention of urine, foreign bodies in nose or throat, deep seated abscesses, etc., all of which could be relieved at once with the proper instruments, must either die from the immediate cause or from the effects of time lost in seeking skillful manipulation, or else they are frequently crippled and disfigured, because the most intelligent help though patiently given is itself crippled for want of proper instruments.

4th. The cheaper grades of instruments are either antiquated or so poorly made that they may prove a cause of failure in operations, sapping, as it were, the natural inclinations to surgery in its inception.

5th. European instruments are from 25 to 75 per cent. cheaper than ours and their introduction into the market will enable the mass of doctors to buy those of prime necessity, will bring down the price of home-made appliances and oblige the makers to use good material and put a better finish to their work.

6th. The removal of import duties on surgical and other instruments used by the profession and on medicines in general, will produce the same results as we all know it did on the article of quinine.

Respectfully, J. C. LeHardy,
Corresponding Secretary Georgia Medical Society.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Jan. 28, 1888. The President, Y. H. Bond M. D., in the chair. J. B. Prichard, M. D., Secretary.

Dr. T. F. Prewitt.—A few weeks ago, the man from whom this leg was removed came to the hospital with suppuration in and about the left knee joint. It seemed to be limited to the supra-condyloid bursa. I made free incisions, giving exit to quite an amount of pus; made drainage and dressed antiseptically, after which he had very little fever. A chronic condition of things set in. The pus burrowed downwards. Lately he had begun to grow worse rapidly and it was evident that he would not survive the protracted suppuration. I made up my mind to amputate a week ago, but he was taken with erysipelas of the leg. That disappeared, and today I amputated by disarticulating at the knee joint. At the margins of the tibia will be noticed denuded bone. The condyles were completely denuded but I did not remove any of them. I had to hurry with the operation. I regret that I did not remove the limb earlier.

Dr. W. B. Dorsett.—This specimen is an aneurism of the arch of the aorta. The patient was 49 years old, a negress, and had had no syphilitic history whatever. She was admitted to the Female Hospital two weeks before death, suffering with excessive dyspnea, which continued till her death. There was marked dulness from the middle of the fifth intercostal space, diagonally across the chest to one inch to the right of the sternum. The aneuresmal bruit was present over this space as well as on the left side of the spine especially as low as the seventh rib. There was pulsation of the jugular veins on both sides. There was no trouble with the larynx, no loss of voice and no trouble with the esophagus. She died suddenly. On post-mortem, the whole chest was found filled

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with blood, denoting rupture, but I could not readily find what vessel had ruptured. The innominate vein was compressed very much against the sternum. The specimen is a fusiform aneurism, involving the ascending, transverse and part of the descending aorta. The innominate is dilated, but the right subclavian is not. The vena cava, I think is the vessel that bursted, as there is a torn place in it. Whether, this was done in taking it out of the chest, I do not know. The atheromatous spots are very plainly seen, and one spot in the ascending portion of the aorta is almost through. The pulmonary artery is very much dilated.

Dr. J. C. Mulhall.—I wish to draw attention to one remark that Dr. Dorsett made that there was nothing wrong with the larynx because the patient's voice was normal. I wrote a little pamphlet some time ago entitled "The Voice a Fallacious Guide to the Diagnosis of Laryngeal Diseases." I well remember a case of aneurism of the aorta which I saw with Dr. Scott, where there was no alteration of the voice, and where on laryngoscopic examination there proved to be paralysis of the abductor muscle of the right side of the larynx. If we have paralysis of the abductor fibers of the recurrent laryngeal nerve, we will find the vocal cord in the middle line of the larynx, in the attitude of speaking, consequently such a patient would have no alteration in his voice whatever. And when there is pressure on the recurrent laryngeal nerve it is usual for the abductor fibers to suffer. I have seen quite a number of such cases, where, so far as the patient's voice was concerned, one would not suspect any alteration in the larynx. Why it is that the recurrent laryngeal nerve being pressed upon, only the abductor fibers suffer, has never been explained.

Dr. Dorsett.—I, of course, did not make any such examination, and only spoke of it as being strange that the voice was not changed.

Dr. J. K. Bauduy.—It occurs to me that it might possibly be accounted for by some possible collateral hyperremia or edema occurring at some points resulting from disturbances at other points.

The committee composed of Drs. Dean, Bremer and Blickhahn appointed to examine the tumor presented on the evening of Jan. 21, by Dr. Prewitt, reported it to be a fibroid tumor that had degenerated, and was given further time to examine and report more fully in writing.

Dr. C. H. Meisenbach.—The patient from whom this specimen was taken was a little girl ten years old. I have known her for seven years. She was delicate, a typical blonde, and had suffered time and again from attacks of anemia. She was also subject to decided enlargement of the tonsils, which at times would become very annoying, and the question arose as to whether it was not advisable to remove them; but as the child grew older, and treatment was given to the throat, the tonsils gradually decreased so that in later years they did not bother her much. On the 21st of last December, she was taken with what seemed at the time an attack of malarial fever, temperature between normal and 100.5°. On the 7th of January she was seized with pain in the precordial region, and dyspnea and coldness of the extremities. Auscultating the precordial region, I found a rough sound corresponding to the impulse of the heart. There was blowing respiration in the posterior portion of the chest. The lungs at no time revealed any evidence of lesion although she had a cough, which I attributed to fever. The child did not do well, and a factor in the case was that very decided anemia. She complained severely of pain for three or four days in spite of remedies, and then became delirious or at least very excitable. For two days and nights she did not sleep, nor did this excitability cease in the least. It was given bromides and opium and about the fourth day it began to become quiet. Iron and digitalis were given in large doses three drops of fluid extract of the digitalis with twenty drops of the syrup of the iodide of iron, every two hours. She bore these immense doses very well, and in four days the excitability became much less. For eight days it seemed to be recovering, and craved for food. During this time, auscultation and percussion of the precordia distinctly showed the existence of pericarditis, but there was no higher temperature than during the malarial attack. When the excitability grew less these signs about the precordial space diminished, though they did not entirely disappear. The friction sound was supplemented by the effusion. Two nights ago the child spent a restless night, the next morning I found it worse, yesterday morning it died. In post-mortem I found slight effusion in the abdominal cavity, but not enough to account for the dyspnea that had occurred. The pleura were perfectly smooth. The left lung was hepatized due to the pressure of the precordial effusion; right lung was normal. The pericardium was solidly adherent to the heart the liver was enormously enlarged. The spleen seemed enlarged and engorged, and had a peculiar pinkish hue. The kidneys were

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normal as far as casual inspection revealed, uterus normal but rather small.

The distinctive feature in the case was first the anemia, which, in all probability was the starting point of the trouble. Of course, living in a malarial region as we do, the child would naturally contract malarial fever. This attack running a course of twenty-one days necessarily debilitated the blood to such an extent that there was no resistance. On this anemia depended the pericarditis from the vitiated condition of the blood. The next feature was the excitability; it depended on the irregular action of the heart, at first from the effusion, later from the adhesion. The anemia also conduced to its development.

Dr. J. K. Bauduy.—It occurs to me that a knowledge of the subject would necessarily make it an idiopathic pericarditis. The tonsillitis was of no importance with reference to the late trouble. The friction sound would imply the first stage of pericarditis. The blowing heard posteriorly could only be pneumonia, which we frequently have complicating pericarditis. Regarding the delirium, pericarditis is not infrequently associated with that. The anemia which complicated the case, was simply an intensified anemia. As regards the malarial complication, we hardly treat a disease in this Mississippi Valley, without treating a malarial complication. The intense hyperemia of the liver is a not infrequent accompaniment of consolidation of the lung tissue.

Dr. L. Bremer.—I would like to ask Dr. Meisenbach whether he examined the brain?

Dr. Meisenbach.—No, I did not.

Dr. Bremer.—In spite of the deficient symptoms and physical signs, there was probably primarily pneumonia, and a secondary pericarditis is not rare in cases of pneumonia. But there is also another complication, a meningitis of pneumonia, which is not infrequent, and there is this fact about it: the pneumonia, which is produced by the pneumo coccus, is complicated by a meningitis which also has for a cause that same organism. In meningitis and pericarditis complicating pneumonia, the pneumo coccus has been found in the meninges as well as in the pericardial sac. It is probable that the extreme nervousness ought to be referred to the cerebral complications. It is of course possible that the dyspnea might also have sufficed to produce this excitability in this case, but there is a possibility—and I am sustained by the fact that pneumonia is frequently complicated by inflammation of the membranes of the brain—that there was really meningitis in this case. In children we have pneumonia called aspiration pneumonia. It is possible that in just such cases of hypertrophied tonsils, this kind of pneumonia may be the easiest contracted.

Dr. Meisenbach.—It seems to be the opinion that pneumonia was the primary disease. I stated distinctly that the symptoms of pneumonia were absent; I will allow that possibly in the last twenty-four hours there may have been a small portion of the lung in which the pneumonia was discernible upon auscultation. But up to that time there was no rusty sputum, no dulness, and the small amount of coughing could be attributed to the fever. It is not hard to diagnosticate pneumonia in children especially when you have seen the child two or three times every day, and especially if the pneumonia were the primary disease. The symptoms were at first strictly of malarial origin, and I found no evidence of pneumonia in either lung. But when the dyspnea came on, then the tubular respiration of the lung opposite to the heart, took place (and the condition of the left lung shows that hepatitis is not complete), and from the time that that came, and the dyspnea took place, the symptoms that were discernible in the posterior portion of the lung were first marked. The adynamic stage of the fever might be based on the asthenia of the child. The pulse was very rapid, 120 and over, and the administration of the digitalis did not seem to have the ordinary effect. Neither did the iron seem to affect the blood in the manner that we usually see it. I think it was a case of malarial fever, upon which, on account of the extreme anemia, pericarditis supervened, then the pneumonia, as some of the gentlemen called it, complicated the whole, with this nervous excitability—possibly meningitis, but I did not examine this on account of the want of time. The dulness posteriorly was very slightly appreciable. At one time there was slight edema of the ankles. There was albumen in the urine two days ago, not before.

Dr. Bauduy.—The reasons why I claimed that there was pneumonia is that there was blowing respiration posteriorly. I take issue with Dr. Bremer who thinks that the pneumonia was primary; I think it was secondary. Regarding the possible meningeal inflammation, that I seriously doubt. I know of no symptoms which will enable us to determine the existence of head symptoms the result of anemia and other circulatory disturbances in contra-distinction to those due to meningitis. Occasionally in rheumatism, head symptoms develop, but in most of those cases the meninges are in an inflammatory condition. In pericarditis we have had symptoms frequently

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develop in the primary stages, but they are due to hyperpyrexia, to effete matter in the blood, and not to any associated meningeal inflammation.

WEEKLY ABSTRACT OF SANITARY REPORTS.

U. S. MARINE HOSPITAL SERVICE,
Washington, D. C., Jan. 13, 1888.

Abstract of Sanitary Reports received through the Department of State from foreign countries during the week ended January 13, 1888, and information received through other channels.

IRELAND.—The average annual death rate represented by the deaths registered during the week ended December24 in the 16 principal town districts of Ireland was 31.2 a thousand of the population. The lowest rate was recorded in Sligo, viz., 14.4, and the highest in Lewry, viz., 59.7 a thousand.

DUBDIN.—One hundred and ninety-nine deaths were registered during the week ended December 24, including three from measles, eight from whooping-cough, four from diphtheria, four from scarlet fever, two from typhus, two from enteric fever, three from diarrhea, and one from dysentery. Diseases of the respiratory organs caused 43 deaths. Three accidental deaths were registered, and in 31 instances the causes of death were uncertified. The deaths from all causes corresponded to an annual rate of 29.4 a thousand.

CALLAO.—The United States consul, in his dispatch dated December 9, 1887, states that "the latest report received by the Government here from Dr. Matto, sent officially to Chili to observe the progress made by the cholera, is to the following effect: 'Santiago, December 7, 1887, I have visited the lazarettos and sanitary establishments at Satiago. The epidemic is stationary. Sixty new cases; one third die. Treatment has happiest effect. At Valparaiso, ten cases. An increase at Rancagua. At Concepcion, none.' The sanitary regulations established here, and stated in my recent dispatches, are rigorously observed. The lazaretto on San Lorenzo Island is approaching completion. Health of city and coast satisfactory."

HAVANA.—The sanitary inspector reports as follows, under date of January 3, 1888, that "there were 712 deaths in this city during the month of December. Fifteen of those deaths were from yellow fever, 312 from small pox; three from typhoid fever; one from bilious fever, nine from so-called pernicious fever, and three from diphtheria. Small pox has steadily increased since its commencement over eight months ago, and the above statement of deaths from it does not include the large mortality from said disease in the adjacent towns of Regla and Guanabacoa. I am informed that small-pox has been declared epidemic in Cardenas."

The same officer reports eight deaths from yellow fever and 69 from small-pox during the week ending December 31, 1887.

BUENOS AYRES.—One thousand and seven-three deaths were registered during the month of October, 1887, including 80 from small-pox, 19 from enteric fever, 5 from scarlet fever, and 53 from diphtheria.

MORTALITY TABLE, FOREIGN CITIES.

Cities.	Week Ended.	Estimated Population.	Total Deaths from all Causes.	Deaths from— Cholera.	Yellow fever.	Small-Pox.	Typhus fever	Enteric fever.	Scarlet fever.	Diphtheria.
Warsaw	December 17.	430,174	240	11		10			9	6
Calcutta	November 26.	433,219	218							
Copenhagen	December 10.	290,000	147							
Munich	December 17.	269,000	114							
Munich	December 24.	269,000	131							
Genoa	December 17.	179,503	115							
Trieste	December 17.	160,157	82							
Stuttgart	December 24.	125,510	37							
Bremen	December 17.	119,000	45			8	1	1	4	3
Havre	December 24.	112,074	50			8				
Pernambuco	December 6.	110,000	45			1		4		
Barmen	December 17.	108,000	38					1		
Rheims	December 17.	97,903	50							
Mayence	December 17.	69,701	35				1	3	1	1
Merida	December 13.	48,711								
Merida	December 20.	48,711	18			14	1	1		1
Merida	December 28.	48,711	18				4	1		4
Cienfuegos	December 23.	35,494	23							

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UNITED STATES.

SAN FRANCISCO, CAL.—*Small-Pox.*—The number of cases of small-pox in San Francisco during the year 1887, was 166, and during the period from Jan. 1 to 5, 1888 there have been 25 cases. Of these, 14 were among the Chinese. The disease was brought to San Francisco early in May by one of the China steamers, but did not prevail to any extent until November. On December 29, the disease was declared to be epidemic by the board of health. All cases, on being verified, are immediately sent to the hospital, with their bedding and clothing; the premises are fumigated, and all persons living in the neighborhood are vaccinated if possible. Vaccination offices have been opened in various parts of the city. No children are admitted to the public schools without having been previously vaccinated. Over thirty thousand vaccinations have been made at the office of the board of health during the past six months. Under the circumstances, the board of health is of the opinion that the disease will soon be stamped out.

PORT TOWNSEND, WASH.—Passed Assistant Surgeon S. C. Devan, M. H. S., reports, under date of January 1, 1888, that because of the action of the Board of Health, of San Francisco, Cal., in proclaiming the existence of small-pox as an epidemic in that city, the board of health at this port have issued instructions, under cover date December 31, 1887, to their health officer to subject all vessels from the port of San Francisco to rigid examination. He also reports that there are three accredited cases of this disease at Seattle, Wash.

TAMPA, FLA.—Dr. J. P. Wall reports that the rumors of the presence of yellow fever at Tampa are without foundation.

JOHN B. HAMILTON,
Supervising Surgeon-General, Marine Hospital Service.

OFFICIAL LIST OF CHANGES.

Official list of changes of Stations and duties of medical officers, of the U. S. Marine Hospital Service, for the week ending January 14, 1888.

Purnance, George, Surgeon. To proceed to Detroit, Mich., as inspector of unserviceable property, Jan. 11, 1888.

Austin, H. W. Surgeon. When relieved to proceed to Chicago, Ill., and assume charge of the service, Jan. 12, 1888.

Gassaway, J. M. Surgeon. Leave of absence extended fifteen days, Jan. 10, 1888.

Goldsborough, C. B., Surgeon. When relieved to proceed to New Orleans, La., and assume charge of the service, Jan. 12, 1888.

Irwin, Fairfax, Surgeon. To proceed to Boston, Mass., and assume charge of the service, Jan. 12, 1888.

Carter, H. R., Passed Asst. Surgeon. When relieved to proceed to Ship Island Quarantine, Miss., and assume temporary charge of the service, Jan. 12, 1888.

Carrington, P. M., Assistant Surgeon. Granted leave of absence for thirty days, Jan. 10, 1888.

SELECTIONS.

A FURTHER INVESTIGATION INTO THE SO-CALLED HENDON COW DISEASE AND ITS RELATION TO SCARLET FEVER IN MAN.

Prof. Edgar Crookshank in a Report to the Agricultural Department of the Privy Council, stated that the streptococcus, that he isolated from ulcers of the teats of the Hendon cows and the streptococcus pyogenes, found in erysipelas, acute abscesses, spreading gangrene, surgical fever, puerperal fever, puerperal mastitis, diphtheria and scarlet fever, could in no way be distinguished from one another. He regarded the post mortem appearences, of the cows and calves inoculated as that of septic infection, and common therefore to many diseases. He concludes with the following summary;

From the evidence I have adduced, and from the facts that I have described, I am led to believe that:

1. The nature of the contagium of scarlet fever is unknown.

2. The micro-organism regarded by Dr. Klein as the contagium is the streptococcus pyogenes.

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3. Streptococcus pyogenes is found, sometimes in company with staphylococcus pyogenes aureus, as a secondary result in scarlet fever and many other diseases.

4. A streptococcus was first observed in scarlet fever by Crooke, later by Loffler, Heubner, and Bahrdt; but its relation to scarlatina, and its undoubted identity with the streptococcus from pus and puerperal fever, was definitely established in 1885 by Frankel and Freudenberg.

To these I would add the following statements.

5. Both the Wiltshire and Hendon cow diseases were called cowpox by people on the farms.

6. Both diseases correspond in their clinical history.

7. The ulcers on the teats correspond in naked eye and microscopical appearances, and the latter " vividly recall the appearances of cowpox."

8. Calves inoculated from the discharges of the ulcers are similarly affected.

6. Post-mortem examination of such calves, or of calves inoculated with streptococci isolated from scarlet fever cases, show similar appearances.

10. The post-mortem appearances in such inoculated calves are the result of septicemia.

11. There are no specific visceral changes in cow-pox apart from complications or coincident affections.

I propose to publish shortly the history of the lad shown at the Society, the full details of the calves inoculated from the boy, and of calves inoculated from those calves, the results of revaccination of those calves, and further details from Wiltshire and Gloucestershire.

THE SCHOOL-AGE AND SCHOOL-HOURS.

Dr. C. W. Chancellor, of the Maryland Board of Health, has recently given an interesting summary of those sanitary requirements which relate to our school system and the public education of children (*Gaillard's Medical Journal*). So much ignorance still prevails regarding this matter, and our school systems are yet so far from what sound educationl principles demand, that articles like this of Dr. Chancellor should not go unnoticed.

The writer, after taking up the subject of school-house construction and site, discusses the question of the age at which education should begin. He cites a number of authorities, from Aristotle to Hufeland, all tending to show that the school-work should not begin until the eighth year. It would not be difficult to find authorities supporting a somewhat different view, and it cannot be asserted that the old New England school system, which took in the children at the ages of four to six, was a pernicious one. The not very high authority of Spurzheim is quoted in supportof the view that "precocity is almost alway a disease." It is "an envious frost, which nips the blossoms because they appear quickly," and such statements regarding precocity are quite untrue. Nearly all men of genius, and very many men of talent, have shown decided precocity.

It is claimed that children whose systematic studies begin at eight years of age get alongjust as fast as others, and at say sixteen know just as much as if they had begun at six. Often this is true; but it has not, we think, been demonstrated to be the rule. Education, *i. e.*, mental and physical training may begin as Quinquillian recommends, at the third or fourth year. But while our schools are arranged as at present, it may be wise to accept the modern view, that the school age should begin at seven or eight.

Ribot has shown that capacity to fix the attention is a characteristic of more civilizen and intillecual people so it is also of more mature minds. The infant has nosuch power; the child of three wearies after a few minutes' effort at following some train of thought or memorizing process.

According to Dr. Newell, "for children of ten or twelve years the capacity for bright and voluntary attention is exhausted by four varied lessons required mental effort of half an hour each, with intervals of relief in the forenoon. In the afternoon this capacity is reduced one-half. Two honrs, in the forenoon, and one hour in the afternoon, is as long a time as children can be profitably employed in school."

Dr. Chancellor supports this view, and advocates eighteen hours a week as the limit for school-children under twelve. Baginsky, author of a German work on school hygiene, takes the same view, and in demonstration of its effectiveness it is alleged that half-time pupils in the English schools learn as much as the children who are in schools learn as much as the children who are in schools the full number of hours.

It would be better, according to Dr. Chancellor, from a purely hygienic point, to make Wednesday the weekly holiday rather than Saturday, and to have examinations occur at the beginning of a school-term than at the end. While this latter seems hardly practicable, the evils of the present system are

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undoubted, and a dividing up the examinations would certainly be more satisfactory and less injurious to the health of the children.—*Medical Record.*

DIET IN THE TREATMENT OF SKIN DISEASES.

Dr. George Henry Fox, in a paper read before the Clinical Society of the N. Y. Post-Graduate Scheol and Hospital said: A somewhat novel and startling, yet truthful statement would be, that every physician who treats a case of inflammatory skin disease without the most careful inquiry into the diet of the patient, is guilty, in a mild degree perhaps, of malpractice and that cutaneous affections most frequently met with viz; those of an inflammatory character, are invariably aggravated if not primarily caused by errors of diet. After calling attentien to the diversity of opinion on dieting as a therapeutic measure, Dr. Fox continued, as follows: The comparative value of a meat and vegetable diet has long been a theme for discussion, and extreme views have been advanced, especially as regards vegetarianism; these views being based upon physiological, humane and economic grounds. The practice of all civilized countries seems to support the theory ,that a mixed diet is the most desirable, and against this I have nothing to urge. But against the very common idea which prevails not only among the laity, but also among physicians, that meat is obsolutely necessary to promote health and strength, I would most earnestly protest. While admitting that well cooked and savoury meats are most agreeable to the palate, and as a rnle more readily digested than fruits or vegetables, it remains a fact that in many countries the inhabitants attain the highest degree of health and strength upon a purely vegetable diet. Among the lower animals, the grammoora, though lacking the ferocity of those which feed on flesh, are by no means lacking in strength, as is evidenced by the common expression, "as strong as an ox," and in spite of the different construction of the human digestive appparatus, there is no proff furnished by observation that the vegetarian is at all weaker than his carnivorous neighbors. On the contrary, how often it is noted that the roast beef steak prescribed by the physicirn with a view to build up his patient's strengh, fails utterly in effecting the desired result. Indeed, my experience and observation have seemed to teach that much of the lassitude, headache, constipation and depression of spirits, from which many individuals suffer, is directly caused by an excessive ingestion of the albuminoid elements of food, such as meat, milk and eggs. I frequently have occasion to see weakly girls, with a trifling ache, perhaps, whose medical advisers have urged them to eat plenty of meat, and to take tonics of beef, wine and iron, etc. In such cases, I commonly expect that a change to frugal farinaceous diet, with an increased amount of exercise, will not only increase the strength, but will also relieve the patient's headache, foul breath and constipation, from which they may have suffered, and at same time raise their spirits brighten their eyes and clear their complexion I would not cite Rider Haggard as a medical authority, but those of you familiar with his popular romances, may call to mind the statement that "She," of transcendent loveliness, was in the habit of living exclusively on fruits."

It is well to remember that the albuminoid elements of our food are mainly of value in the building up of tissues, while the carbohydrates serve as fuel-food, and through their combustion are converted into heat and energy. Now in the case of the growing child, the athlete or the day laborer, a good supply, of the tissue forming elements of food, is of the highest importance, but in the case of the great majority of adults whose tissues are fully formed and whose habits of life are such as occasion but little tissue change, the diet most desirable is that which can be converted into heat or vital force. This indication is best fulfilled by restricting the amount of nitrogenous food, and by increasing the amount of carbo-hydrates and fat. Some eminent dermatologists have accepted the theory advanced by Bence Jones, that gout and rheumatism are largely due to a sub-oxidation of the saccharine and amylaceous elements of food, and believing that eczema and psoriasis are frequently of gouty origin or dependent upon the same systemic conditions which predispose to gout and rheumatism, they are in the habit of advising their patients to live almost exclusively upon a meat diet. This sub-oxidation theory is a very plausible one, and is doubtless the basis of the advice so frequently given to patients with skin diseases to avoid the free use of bread, potatoes and fruits. But, in my experience, this plan of dietetic treatment has frequently failed, and where the digestive powers of the patiens are not such as to contraindicate the free use of starch and sugar, I have prescribed them in preference to a highly nitrogenous diet, and I think, with good re-

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sults. I have repeatedly seen patients with proreans of long standing who had been subjected to various plans of dietetic treatment, and who had carefully observed the effect of diet upon their eruption. Such patients have almost invariably stated that an exclusive meat diet would increase the redness and itching of the patches of psoriasis in a notable degree, while a simple farinaceous diet would improve the appearance of the eruption. I have myself repeatedly observed the tendency of a meat diet to increase the congestion of the skin, while I have yet to see the first case of skin disease which seemed to be caused or even aggravated by oatmeal or buckwheat cakes. These articles of food may produce indigestion, and secondarily induce rash and general erythematous eruptions, but the common idea that they "heat the blood," and and thus cause skin disease, appears to me to be groundless. Cases of chronic dyspepsia I know to be cured by a prolonged diet followed by a general outbreak of eczema.

Of the value of fats and oils in furnishing food to the nervous system and in subserving the general nutrition of the body there is no room for doubt. In the dietetic treatment of skin diseases, this is the one element of the food which is most frequently lacking. There are few skin diseases which are not more or less neurotic in their character, and in the cases of many patients an increased supply of fat meat, cream, butter, or cod liver oil do much towards restoring a healthy nutrition of the skin. Of course there are many patients who have or claim to have, a decided aversion to fats, and it is not the amount of oil which is taken into the sfomach but the amount which is digested that proeuces the beneficial results. With children and delicate women who cannot take a lump of fat into the stomach without a feeling of nausea, the disired end can be attained by finely commint-ing the fat of beef and mixing it thoroughly with bread or potatoes; and in the administration of cod liver oil it is always well to avoid administering the dose immediately after a meal; but to wait for a half or three-quarters of an hour until the gastric digestion is nearly accomplished, when the oil will pass immediately into the duodenum and be acted upon by the biliary secretion. The exact quantity of water necessary to keep the bodily functions in their best working condition is difficult to state, inasmuch as the quantity must needs vary constantly in accordance with changes of temperature, increased exercises, etc., but it is quite certain that few people drink too much water, however frequently they may suffer from over-feeding. On the contrary, it has seemed to me that many suffer in various ways from an insufficient supply of liquid food, and I feel sure that many unpleasant feelings and symptoms of actual disease would quickly disappear if the sufferers only appreciated the value of this best and cheapest of all remedies. Our works on hygiene lay great stress upon the healthfulness of frequent bathing but however agreeble and desirable our daily ablutions may be, it is an undisputed fact that many of our fellow creatures maintain not only an excellent physical condition, but a healthful activity of the skin without wetting more than their hands and face from January to December. But the interior of the body needs cleasing as much as the exterior, and a liberal supply of water in the treatment of our patients will bring about the desirable results which drugs have failed to accomplish. During meals the supply of water should be restricted, as it is very apt, especially in the case of children, to interfere with the process of digestion. But, taken two hours or more after a meal, when the digestion of food is in great part ended, or upon going to bed, it cannot be too highly recommended.

One very important point to be conaidered in preparing a diet list for patients with skin disease is the effect of alcohol, tea, coffee and tobacco in retarding tissue-metamorphosis. To inprove the nutrition of the skin, it is desirable that the processes of waste and repair be carried on without cessation. When alcohol or other stimulants ar consumed to any extent this desirable change or reconstruction of tissue is arrested, and the various organs of the body are impaired in the performance of their functions. The effect of beer upon an eczema is as marked as it is upon a gonorrhea, and I have sometimes thought it better for a patient to drink a whole bottle of whiskey than a single glass of malt liquor. The effect of tobacco and coffee is frequently bad in cases of pruritus, and in private practice I have fallen into the habit of forbidding all stimulants on the ground that they do no good and may do harm. In charity practice, it has foten struck me as the height of oflly to prescribe medicine for patients who are living largely on tea and beer, and whose symptoms would speedily disappear under a judicious regulation of diet. Indeed, it is difficult to appreciate what dietetics will do in the treatment of cutaneous and other diseases unless we move, for the time being, a suspension of the Pharmacopeia.

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GREETING!

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SOME OF THE USES OF ANTIPYRIN.—Dr. Wm. H. German, of Morgan Park, Ill., writes "In trifacial neuralgia, in hemicrania, in migraine, in congestive dysmenorrhea, in lumbago, it affords prompt reliet, and in many cases is curative. In my experience it is useless in hepatic colic. A fifteen-grain dose will quiet an aching tooth for twenty-four hours. In two cases it has seemed to terminate typhoid fever, when given in full doses at the end of the second week. It diminishes and, in some cases, prevents the hectic of phthisis.

REPORT ON PROGRESS.

DISEASES OF CHILDREN.

BY I. N. LOVE, M. D.

I. THE PROPHYLAXIS OF SCARLET FEVER.

II. BENZOATE OF SODIUM IN UREMIA.—FEB. No. *Amer. Journal Med. Sciences.*

III. CHILDREN'S WINTER DRESS.—*London Lancet*, DEC. 1887.

IV. THE BACILLUS OF WHOOPING COUGH.—*Ibid.*

V. THE TREATMENT OF WHOOPING COUGH.

VI. THE AMERICAN PEDIATRIC SOCIETY.

THE PROPHYLAXIS OF SCARLET FEVER.

In the January number of the *British Medical Journal*, appears a report from Edward Crookshank of the bacteriological laboratory of Kings College, London, of a further investigation of the so-called Hendon cow disease and its relations to scarlet fever in the human.

He takes the position that the contagium of scarlet fever is still unknown, and that the micro-organism regarded by Klein as the specific germ of scarlet fever is nothing more than the *streptococcus pyogenes.*

He concludes that the cow disease on the Hendon and Wiltshire farms was simply cow-pox.

In the *N. Y. Medical Record*, December 10, 1887, appears the report of Dr. Stickler, of Orange, N. J., suggesting the idea that the foot and mouth disease (aphthous fever) and scarlet fever bear the same relations one to the other, that cow-pox and small-pox do to each other. He thinks children should be

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protected from scarlet fever, by inoculating from cattle suffering from the "foot and mouth" disease, or from vesicles from cattle produced by inoculating them with virus derived from children suffering from scarlet fever. Stickler inoculated three children in the manner first described; two were purposely exposed to scarlet fever, the third had "opportunity for infection:" none contracted the disease. While we are far from believing that anything definite has been accomplished, yet the idea is worthy of further investigation.

Mr. Robert William Parker, surgeon to the East London Children's Hospital, in the *British Medical Journal*, for Nov. 1887, takes a position strongly antagonistic to the plan pursued of carefully isolating all cases of infected persons in these latter years. He thinks that the more carefully isolation is practised, the more frequent will epidemics become, and the greater will be the proportion of adults affected. He says: "For soon among the adult population there will be a very large number of persons unprotected by a previous attack of the disease, and therefore a large number prone to succumb when epidemic influences are rife. Should isolation continue to be successfully practised, we may look forward to a time when the population will, to all intents and purposes, be "virgin soil," in which the *materies morbi* will propagate itself with great intensity.

The first outbreak of measles which occurred in the Fiji Islands will doubtless be fresh in the minds of many persons, for the disease was characterized by great virulence and a high mortality. Now, although I think the question of "virgin soil" is one not likely to trouble the present generation, still the strict isolation of infected persons is certainly bringing about an increasing number of persons liable to be attacked by this and kindred fevers, and it is a circumstance which should occupy the attention of those authorities who have to provide accommodation for fever patients. I cannot doubt that their difficulties will increase, rather than decrease, as time goes on. I think the fevers will tend to occur in epidemics, that will become severe and occur very largely among the adult population. It is a matter of experience that the exanthemata run a severer course in adults than in children, to say nothing of the great inconvenience which adults experience in being shut out from their duties and occupations without warning or time to make needful arrangements. The question has frequently passed through my mind whether it is really a wise thing to try and escape an attack of measles or scarlet fever, seeing how often escape merely means postponement—postponement from childhood, perhaps, when the fever may be gone through with comparative ease and comfort, to adult life, with all the inconveniences, anxieties, and additional dangers which advancing age entails. As far as my own experience goes, scarlet fever, except in its malignant forms, is not a dangerous disease, provided it be carefully treated from the first. The malignant forms ought to be most carefully isolated and under the control of thoroughly skilled practitioners. I believe, however, that far more mischief arises from neglected mild cases (which are many) than from the malignant cases (which are few). In the majority of cases a mild attack of fever, if the infection spreads, begets a mild form in those to whom it spreads, although the contrary occasionally happens. I will not go so far as to say that children should be actually exposed to contagion, but I feel sure that their removal from an infected house often fails to save them from the fever, while it materially favors the spread of the disease among neighbors, friends, and relations. Under the old regime the children of a family went through the disease one after another, and so got probable immunity for the rest of their lives. By all means isolate a house when infection breaks out; keep it there until it has exhausted itself, and adopt every known precaution in the way of disinfection afterwards. I am inclined to doubt the advantage of removal, especially in the case of children, and believe that the insistence on early and continuous therapeutic measures, rather than on purely preventive

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ones, will, in the long run, prove of greater service to the individual, as well as to the public."

[The attitude assumed by Dr. Parker upon this subject is a novel one. I an glad he is not so extreme as to favor exposing children to contagion. I believe it to be a fact admitted by all, that the longer a child lives without becoming a victim to disease the better; he becomes more robust and better able to wrestle with disease, and all other dangers. Scarlet fever is a disease to which children are very susceptible. Let us protect them from the disease as long as possible, and the farther removed they are from childhood the less liable they are to fall victims to its ravages.

It is a fallacy that should be exploded, the idea that the adult who contracts scarlet fever must needs have it more severely than the child.]

Benzoate of Sodium in Uremia.

Parzevski puts forth some remarkable claims regarding the curative power of sodium benzoate in uremic intoxication (quoted in the *Bull. Gen de Therap.*, Dec. 15, 1887). He administers four to eight grammes (℥j-℥ij) a day, in solution or capsule, the latter preferably. Twice the quantity can be given by the rectum if well diluted. Under the action of this remedy the paroxysms lessen in severity, the intervals grow longer, and the convulsions after a time cease entirely. Profound sleep is produced by it, and during this the cerebral functions are restored. When albuminuria exists, a marked diminution occurs in the quantity present, or the albumen disappears entirely.

[If the claims are substantiated they will furnish another strong argument in favor of the benzoate of soda in scarlet fever and diphtheria. Why it should be given in capsules does not appear.

On general principles all remedies are better when given in solution; and when they are so far removed from being disagreeable as is this drug, the liquid form is certainly to be preferred. The following formula is an agreeable way of administering it.

℞ Benzoate soda, - ℥iv
Glycerine, - - ℥ss.
Aquæ menth. p., - ℥iss.
M. Sig. Teaspoonful every hour or two for an infant.]

Children's Winter Dress.

"There is a tolerably general impression in many quarters that in order to promote the health of children it is advisable to subject them to a "hardening" process. The meaning of this term it is needless to explain, further than to say that it is to encourage native energy by opposition, to engender strength of mind and body by early participa tion in the struggle for existence. The principle is in itself a wholesome one, and is not without its parallel in the history of nature's processes. Care is most necessary, however, in its application. Without such care it may be, and frequently has been, overdone. In particular must it be remembered that all success in the adoption of this plan in education depends on the possession by a child thus trained of a basis of sturdy physical vigor. A delicate child, if treated after the same method, would languish and probably succumb. We have been led into this train of observation by noting the frequency with which one finds children of both sexes and of different ages, constitutions and positions in life treated after one uniform prescription of hardy training. We would now concern ourselves particularly with that aspect of the question which has to do with clothing during such inclement weather as prevails at present. That considerable variation of opinion should obtain among parents with regard to this subject is only to be expected. Here, it may be said with truth, is room for the wise exercise of private judgment, and here we may in many cases find occasion to apply the maxims of the hardening system. So much may safely be granted, but we must not forget that certain essentials cannot be dispensed with under any plan adopted. Among these the

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maintenance of bodily heat and dryness is all-important, and certain of the most prevalent customs of domestic life incline us to believe that the fact is but slightly understood. The hat, for example, is often, in the case of girls, far too light and too cool. Instead of straw, we would substitute some form of woolen material, just as boys, with few exceptions, are commonly provided with hats of wool or felt, which are at once light, comfortable, and suitably protective against weather. Underclothing is another matter which does not as yet receive adequate attention. We still find the linen shirt or chemise worn very commonly next the skin. This is an error in personal hygiene which cannot under any system be excused. Summer and winter, indeed, present no material difference as regards the choice of an under-garment. Lighter or heavier, the material certainly should vary in accordance with the degree of external cold; but throughout the year no other substance is so wholesome or so preventive of chill as a woolen fabric. Of the feet we need, perhaps, hardly speak. For them, as for the rest of the body, a casing of wool is the prime requisite; and, indeed, the use of this material as a general investment for the skin will be allowed by members of the profession generally to be the great regulating principle in arranging the dress of children, whatever the view most approved in their physical education."

[This subject of the proper clothing of children is a most important one, and demands careful attention upon the part of the physician, the guardian of the family.

I do not question the fact that all would be better protected against disease at all seasons of the year if an animal fabric were worn next to the skin.

Dr. Jaeger, the originator of the Jaeger flannels may have become a fanatic in claiming that nothing but wool should be worn upon the body whether it be inner or outer garments, hats, caps or shoes, but that there is an element of truth in his theories no one can doubt.

During the winter months 75 per cent of the deaths of all children under five years of age is due to "taking cold"; by proper clothing much of this could be avoided. Parents should be taught to understand that there is no danger from breathing cold air if the surfaces are protected from chilling. Children, if properly clothed, might at all ages be permitted to go out doors and breathe pure air, rather than be housed up and trained as dwindling little sensitive plants.]

The Bacillus of Whooping-Cough.

"Dr. Afanasieff has succeeded in finding and cultivating what he believes to be the true bacillus of whooping-cough. This microbe differs distinctly from all other bacteria which have been described. It is somewhat like Friedlander's pneumonia bacillus, but is shorter and thinner than the latter; besides, in gelatin it does not form nail-shaped cultures, those which are produced having no hemispherical head. Its potato cultures, too, are quite different from those obtained from Friedlander's bacillus. Afanasieff's bacillus exhibits a remarkable degree of vitality, for jelly cultures that have become dry and have been kept for four months, appearing under the microscope to be more or less destroyed, are still capable of producing fresh cultures when fresh media are inoculated from the dried mass. Dr. Afanasieff's researches were chiefly made from the sputum of some of his own children, who were affected with whooping-cough. The mouth was well washed out with a permanganate solution, and the mucus coughed up after the next paroxysm or two examined. In this mucus, after staining with methyl-violet, and in the pus-corpuscles contained in it, the bacilli could be seen with a magnifying power of from seven hundred to one thousand (Zeissl's eye-piece 3 or 4, one-twelfth oil immersion objective) as short rods, sometimes single, sometimes in twos, or even in short chains running in the direction of the mucus, sometimes again in small clusters. Their length was from 0.6 μ to 2.2 μ. Of course other bacteria were found. Pure cultures, however, were easily made on agar-

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agar, meat peptone jelly, potato, etc. Dogs and rabbits were inoculated with a fluid culture mixed with chloride of sodium solution, some by means of injection into the trachea, others by direct injections into the lungs. All the animals were seriously affected, and many of them died. The symptoms were somewhat similar to those of whooping-cough, including cough, dyspnea, and redness of the eyes. Many of the cases were complicated by broncho-pneumonia. On examining the bodies of those animals which died, the mucous membrane of the air-passages was found much reddened, and coated with a tenacious clear mucus, in which, as well as in the pneumonic patches in the lungs, the bacilli were found. Similar appearances and the same bacilli were observed in the bodies of children who had died from whooping-cough. As to treatment, inhalations and sprays of various antiseptic drugs would appear to afford the most ground for hope in relieving and shortening this complaint. The author points out that the quinine, benzoin, and other substances which have been used as applications to the nasal mucous membrane by Michael and others, under the idea of combating a reflex affection, are really, perhaps, beneficial from their property of destroying bacilli."

[Whether Afanasieff's bacillus has "come to stay" or not, there can be no question that pertussis is due to some specific germ and that the proper treatment of the disease demands a recognition of the microbe. Elsewhere in the REVIEW is a paper upon the use of the peroxide of hydrogen; the application of this remedy to the air passages in the treatment of whooping cough is referred to and two cases cited. Of course this is not enough to establish its value in this condition only so far as it goes.]

[In conjunction with the above, antipyrin given four or five times in the twenty-four hours (a dose 3 to 4 grains to a child ten years old) the paroxysms were markedly diminished in frequency and severity and the continuance of the disease abruptly shortened in spite of its occurrence being in the most unfavorable season; the severe weather of January and December. I was led to the administration of antipyrin by the fact that Prof. Germain See, of Paris, prescribed the drug successfully to a friend and patient of mine who consulted him suffering with asthma. I have since observed in the *Medical Chronicle* the statement that Sonnenberg in the *Deutsche Med. Woch.*, recommended it as the best remedy in whooping cough.]

"He has used it in seventy cases, and asserts it surpasses in efficacy and utility all other remedies. He gives one-seventh of a grain to very young children, and gradually increases the dose according to the age. To adults he gives 15 grains. The medicine is administered three times daily, and sometimes once during the night. Children take it readily when dissolved in a little water and raspberry juice. The remedy should be continued throughout the attack, the cessation of it being accompanied by exacerbation of the cough. The average duration of cases thus treated is three to five weeks, and it rarely happens that more than six or seven paroxysms occur during twenty-four hours. Under antipyrin the appetite and nutrition was found to improve. When Sonnenberg commenced this treatment at a late stage of this disease, he found that the paroxysms were at once reduced in violence, and that the expectoration was rendered more easy. In a few cases the good effects of antipyrin were not noticed until a few days after its use had been commenced. Collapse was never noticed. Five out of seventy cases treated with antipyrin had complications; two suffered from pneumonia, and one of these died. The hygienic conditions of the patient should, of course, be attended to, but Sonnenberg says that though in the majority of his cases this was not possible, the curative influence of the drug was very definite."

En passant I desire to state that the pronouncement against the use of antipyrin in treating the diseases of children has not been borne out by my experience. I recognize the fact that the drug in certain conditions is more or less depressing and needs to be given guardedly, but this will apply to all medicine.

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None should be given carelessly or by unskillful hands. To the mother possessed of a mania for dosing, the "inert infinitesimals are a great boon," and she should be advised to confine her manipulations to that particular field of harmlessness.]

American Pediatric Society.

I have received the following communication:

Dear Doctor:—The American Pediatric Society was organized in Washington last Sept. Dr. J. Lewis Smith, of New York, was appointed temporary chairman, and Dr. Wm. D. Booker, of Baltimore, temporary secretary. It is the belief of the chairman and secretary that the society should convene next Sept. for permanent organization and for the reading and discussion of papers.

We suggest N. Y. city as the place for holding the next meeting, and it may not be premature or inappropriate to suggest the name of Dr. Abraham Jacobi for the office of permanent president. But the officers will of course be elected by the vote of the society. We wish to obtain your views in reference to the plan and whether you will co-operate.

Yours truly,
J. Lewis Smith,
Wm. D. Booker.

64 West Fifty-sixth St., New York.

I give the letter in its entirety thoroughly endorsing the various suggestions. It is certainly desirable that all the workers in this special field should be brought more intimately into contact with each other.

The meeting being held in September or October will in no manner interfere with the Annual meeting of the American Medical Association, and the special organization will redound to the best interest of the Pediatric Section of the national representative body of the profession at large.

The fact that Drs. J. Lewis Smith, Abraham Jacobi and Wm. D. Booker, are interested in the organization pronounce its success in advance.

The Review will in every way possible do its share in aiding the good work.

ORIGINAL ARTICLES.

THE PORTAGIOUSNESS OF PHTHISIS.

BY WILLIAM PORTER, M. D.,
Physician to St. Luke's and to the Protestant Hospit
Consulting Physician to the St. Louis City Hospital, etc.

Read before the Medical Press Association of St. Lou
Jan. 30, 1888.

Gentlemen.—Before entering upon th discussion of the subject proposed, permit m brief reference to the terms employed.

I have chosen the word portagious becau it conveys a more exact idea of the manne of transmission of phthisis, for reasons here inafter mentioned, than either contagious o infectious.

In this writing the term phthisis will b used to denote that class of diseases to whic belongs the majority of cases of slowly pro gressive pulmonary inflammations, *i. e.* chronic tubercular phthisis.

Pardon me if I decline to enter into a dis cussion of the relation of the bacillus t phthisis. After somewhat closely following the investigations of recent years, I cannot conclude whether the bacillus is the cause o the product of tuberculosis. Certainly n positive therapeutical gain has yet been made based upon the hypothesis that the microb is a factor of phthsis *per se*, but rather is ou advance continually upon the old lines of aid ing assimilation, diminishing waste and car ing for the hygienic surroundings. So far as o present knowledge extends, the bacillus is phthisis as smoke to fire; it may indicate existence, but neither incites nor intensi the combustion.

Whatever the development of theory m do for us in the future, let us this eveni limit ourselves to deductions made from corded facts.

The question I would ask of you is, ha we reasonable evidence that the products or emanations from a phthisical subject m be carried to, received by, and cause like d ease in one previously free from phthisis?

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Believing that the weight of testimony is with the affirmative I will offer the results of,

1. Some experiments made as to the transmissibility of phthisis,

2. The practical experience of others, and

3. Personal observations.

1. In experiments made by Tappeiner in 1883, tuberculous sputa being inhaled by eighteen healthy animals, tubercles in both lungs and pleura were afterward found in seventeen.

That record of Koch's work found in the second volume of the Imperial Health Reports, shows that after the inhalation of material from phthisical cavities, all the rabbits and guinea-pigs under observation, had within twenty-eight days, tubercles throughout the lungs of all and in the liver and spleen of some. It is true that many of the masses in Koch's description resemble caseous broncho-pneumonia but this is also to the point according to the definition of phthisis which we hold.

Wargunin of St. Petersburg in 1884 showed by experimental research in three series of cases that the nodules of broncho-pneumonia resulted not only from the inhalations of phthisical sputa but also from other foreign substances.

The proposition that tuberculous phthisis is an infective malady was endorsed twenty years ago by Villemin and Chauveau, who labored to demonstrate that inoculation of tuberculous matter only, would produce tubercle, while Saunderson, Fox and others claimed the same result from the introduction of other material.

Martin, of Paris, within the last few years however after a number of experiments which I may not detain you to describe (*Rev. de Medecine*) seems to have established the following conclusions: (*a*) "Tubercle inoculated locally, determines, after incubation and after a variable time, general tuberculosis, and the virus seems to acquire increased activity by inoculation in series of animals of the same or allied species. (*b*) But, if we inoculate matter obtained from those tubercles secondary to the injection of non tubercular foreign bodies, it never gives rise to general tuberculosis; and after two or at most three terms of the series it even loses the power of producing a local inflammation."

Though we were to admit that Wargunin, Sanderson and Fox have found tubercle to result from inoculation with non-tuberculous material, we would still be justified in maintaining that the inhalation and absorption of phthisical matter is a potent cause of phthisis.

The carefully conducted investigations of Cadeac and Mullet recently published show that while no positive result was obtained from compelling rabbits and guinea-pigs to inspire air exhaled by phthisical patients, yet when air was used collected from near the beds of hospital inmates, the air presumably carrying particles of sputa, two out of twelve guinea-pigs acquired tubercle.

Permit me to refer to an experiment of my own. Three healthy guinea-pigs were selected. One was inoculated with phthisical sputa and placed in a small box with one of the others. The third was confined in a box in an adjoining room. They were cared for alike and had similar food. In four weeks the first one died and the examination showed tubercle in the lungs and a large cheesy gland near the point of inoculation. Three weeks after, the second animal sickened and was killed. I found small granulations scattered through both lungs, at some points aggregated and in the right lung were two nodules having a soft cheesy center. The third guinea-pig examined three months later had no evidence of tubercle or other disease.

The only experiment made, so far as I know, upon a human subject was made by Drs. Demet, Pararkey and Zallories, of Syra, in Greece, who inoculated, with sputa from a phthisical patient, a man whose history afforded no suspicion of tubercle and whose lungs were healthy, but who had gangrene due to femoral embolism, and who would not permit amputation. In three weeks auscultation revealed evidences of disease at the right apex. Thirty-eight days after the inoculation the man died from gangrene when it was

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found that the upper right lobe had seventeen small tubercles and two granulations in the apex of the left lung.

2. What has been the practical experience of others?

One of the most valuable labors of the Collective Investigation Committee in London is that relating to the transmission of phthisis. While the majority of replies to inquires were unsupported negatives, two hundred and sixty-one answers coming from physicians in family practice affirmed the proposition that phthisis may be communicated from the sick to the well, and evidence was given in proof of the statement. One hundred and ninety two observers recorded cases where both husband and wife became phthisical, in one hundred and thirty cases there being no phthisis in the family of the one to whom the disease was thought to have been transmitted. Some of these cases were very interesting.

Dr. Spriggs of Great Barford instanced the "case of Miss R., aged 48, a dressmaker who living in rather a lonely cottage at C., Bedfordshire, had three apprentices, young girls of from 17 to 19 years of age, not related, from three adjoining villages, who took it in turn to remain in the house and sleep with her, each one a week at a time. During their apprenticeship, Miss R. was taken with phthisis, of which she died. In less than two years afterward, all three apprentices died of phthisis although in the family history of each no trace of phthisis existed; and the parents, brothers and sisters of two of them are alive and well at this time.

Another interesting case is related by Mr. G. F. Blake, of Mosely, Birmingham, in which a perfectly healthy child, with a family history free from all trace of tubercle, is reported as becoming infected by a phthisical nurse, and having died with profuse hemoptysis, after the disease had run a rapid course."

The following cases were reported to the Clinical Society of London by Dr. Herman Weber:

A young man, who had lost his mother, two brothers and a sister of phthisis, and who himself had twice had hemorrhage from the lungs, had quite recovered, and married at 27, being then perfectly well. His first wife was in good health, and came of a healthy family. She died of consumption after her third confinement. The man shortly married again an "apparently healthy woman," and this second wife, after a year of married life, died of "galloping consumption." He again married a healthy young woman of 25, belonging to "an exceptionally healthy family." During her second pregnancy, she developed symptoms of phthisis, which ran a rapid course and ended fatally in about eight months. Undaunted this man married a fourth wife, a perfectly healthy woman of 23, of healthy antecedents. Three months after her first confinement, she began to show symptoms of phthisis, and, notwithstanding two sea-voyages, died after nine months, with tubercle in liver, spleen and intestines, as well as in the lungs. Though the husband of these four wives, who was a sailor, remained in apparently good health, physical examination revealed the existence of morbid changes at the apex of left lung. It is possible that the life at sea kept the disease in abeyance; for when he had to lie by on account of a severe fracture, the disease became active, and he died of consumption within two years."

A convincing report of a case in which the portagiousness of phthisis is affirmed serves as an introduction to a valuable paper last year by Dr. F. I. Knight, of Boston, and who has not read the evidence offered upon the subject by Webb?

I need not farther collate records, for your gentlemen, being conversant with medical literature will grant that new and strong proof of the proposition which we have announced is being constantly given.

3. What have been our own observations? In more than three hundred cases of phthisis in which I have kept a record of the family history, I find that fifty-one per cent of the number were of families in which some other case had occurred. The inquiry extended no farther than to first cousins. Heretofore, this would be accepted as evidence in favor of the

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heredity of phthisis, but I now believe that in many of these cases the disease was acquired by the carrying of the products of disease to a subject whose physical condition favored its reception and development.

I recall the case of Mrs. L., in whose family was no trace of phthisis. Before her marriage, and for several years after she was the ideal of a healthy woman. Two children were born. Her husband, a well known city official, had phthisis. Her attendance upon him was constant, and for some months before his death she and the youngest child were with him night and day. When called to attend him I found that he had been substituting for the ordinary cuspidore a newspaper spread upon the floor at his bedside, and this would be loaded with sputa each morning.

The case was rapid. The husband died, and within eighteen months Mrs. L. and the younger child also died from phthisis, while the elder daughter, who was in the sick room comparatively little, still lives, and is well and strong.

I have the notes of other instances almost as instructive, but this will suffice.

From such facts as I have endeavored to give in this paper, I believe it is fair to conclude the probability of the portagiousness of phthisis.

How, then, can the disease be conveyed? In two ways, mainly: first, by air carrying particles of disease into the respiratory tract; second, by food from infected sources through the alimentary tract.

The first of these propositions is, I think, proven. Not only are the experiments and records here given powerful affirmations, but there is in the profession a steadily increasing belief in its trsth which would require much more negative testimony than has yet been offered.

I would not be misunderstood. I do not think that as yet we can sustain the statement that phthisis is contagious—acquired by mere contact—or infectious, if the term be limited to imply a hidden subtle miasm communicating the disease, but I do hold that particles of matter from the site of disease in a phthisical patient may be carried, planted in suitable soil and incite phthisis. I cannot think that all are liable to so acquire the disease.

I would go further and say that probably only those may so contract phthisis, who by reason of lowered vitality, through previous sickness or long watching in the sick room, or those who have local congestion or inflammation in the respiratory tract. The fixation of a minute particle of dried sputum from a phthisical cavity upon a point of irritation in the respiratory tract of a non-phthisical patient may constitute an effective inoculation. This leads me to express my belief in the possibility of auto-inoculation, in so far that the debris from a tuberculous lung coming in contact with the larynx denuded of epithelium may cause laryngeal tuberculosis.

The second proposition that phthisis may be caused by eating the flesh of tuberculous animals or drinking the milk of tuberculous cows may also be received with the same limitations as the first, *i.e.*, that there are conditions which favor the development already existing in the individual; and, as Mr. Law, of Cornell University, has well said, this embraces such a large class that the interests involved are almost illimitable.

I will not detain you by detailed suggestions as to our duty if the position maintained in this paper be true. There should be frequent change of the atmosphere in the sick room, complete disinfection of all clothing or vessels holding expectorated material and the close confinement of any relative of, or attendant upon a phthisical patient should be forbidden.

I also believe the day is at hand when the physician will recognize that it is as much his duty to examine the food that his patient eats, or the milk that is ordered for a sick child, as it is his province to see that the drugs he prescribes are pure and well compounded.

2830 Locust Street.

Discussion.

Dr. George F. Hulbert.—I would ask the

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doctor if in a majority of cases of laryngeal tuberculosis the laryngeal difficulty occurs previous to the infection of the lung.

Dr. Wm. Porter.—In some cases, but certainly not in the majority.

Dr. I. N. Love.—I would like to ask the doctor to define the difference between the word portagious and contagious.

Dr. Porter.—The word portagious is a recently coined word. By contagion we technically mean the reception by touch, by contact. By infective diseases we mean those acquired through some miasm—some hidden influence, as possibly the miasm of malaria. In this practical age the two terms have been inter-changeable. The reason I have chosen the word portagious, is that it is convenient to convey the idea that diseased particles could be carried through the atmosphere and lodged in the soil prepared for the reception of the disease. The definition has no practical bearing, but is descriptive.

Dr. Adolf Alt.—It seems to me that it is unnecessary to coin a new word. The word infectious is sufficient for all practical purposes. Moreover the idea that Dr. Porter conveys in the word portagious, that it is either through the touch or by miasm, does not hold good. It is a hidden miasm. Although it may be brought into the system by the respiratory tract, yet it may be brought into the constitution by other means. I don't see how he could explain local tuberculosis of the iris. Here we can not suppose that the particle was carried directly to the diseased portion. Yet I believe that although you wanted to leave the bacillus out, we have specific poison in tubercles if we have it in any thing at all. We do not have here to deal with a hidden miasm. It is the most securely proven microbe of any that we know. It gets into the body in some way; how, we do not know. In tubercular meningitis of children it is a localized disease. The tendency now is to call all diseases infectious.

Dr. W. B. Outten.—I would like for Dr. Alt to give a definition of tubercles.

Dr. Alt.—A granular eruption, caused by the infection of some organ that was in condition to receive the tubercle bacillus.

Dr. C. H. Hughes.—In regard to the new term portagious I confess that the significa tion of the term has not been made especiall plain to my very dull comprehension. Th older writers used the terms contagion an infection differentially giving to each word a distinctive signification. By the term conta gion—which was taken from con and tange —they implied direct contact of the substanc itself. They classified certain diseases a communicable only by contact with the bod of the patient, and the coarse contagious ma ter of the disease, other diseases communic ble by infection—by influences transmitte through the atmosphere. When I was a st dent of medicine I had the good fortune t have both a young and an old teacher, an the old teacher was a great stickler for th knowledge of the past, and exacted of m some familiarity with what had been said be fore my time, and I recollect distinctly th impression made on my mind in studying th older writers, of the clear distinction whic they drew between contagion and infectio If this term portagious means to imply bot infection and contagion, it is very proper an ought to be adopted. We know that thes terms are used indiscriminately by medic men. The older writers—and it is strang how medical observation revolves in cycles— as far back as Hippocrates believed in the com municability of phthisis from person to pe son. They knew nothing of the bacillus tu berculosis just as the generation precedin our own knew nothing of the comma bacillu and yet in their clinical observation they di cerned the fact that cholera was a contagiou and not an infectious disease. They knew that visitors and medical men might come in contact with cholera patients and not becom affected, but that those who washed th clothing or removed dejecta were the person who were most usually affected.

Dr. Outten.—To my mind, if there is one single element which the bacteriologist can claim to have demonstrated it is the bacillus tuberculosis. Probably as

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correct and expressive a definition of tubercle is where it is characterized "as a non-vascular cellular nodule, which does not grow beyond a certain size, and at a certain stage of its development becomes caseous." Regarding the specific element of tubercle from recent investigations of bacteriologists, this definition then needs an added element defining it as being a cellular nodule containing within it the specific tuberculous virus, the bacillus tuberculosis.

The assertion has been made that its transmissibility is not always successful upon certain animals, while admitting that it has been demonstrated that some animals are very susceptible, such as rabbits, guinea-pigs, ruminants, while others like dogs enjoy a certain degree of immunity. This we conceive depends more upon the peculiar idiosyncrasy than upon any other cause. Fleming cites the instance where Hering during a period of three years unsuccessfully inoculated the virus of rabies upon a mastiff. No one will doubt that in this and similar instances it depends upon idiosyncrasy and certain unknown factors. The dog even enjoys an immunity under certain conditions when inoculated with putrid substances. The infectious character of tuberculosis I think is proven. Gerster in his recent work upon aseptic and antiseptic surgery claims to have been the victim of "local tuberculosis of the pulp of the thumb, contracted by the infection of a small cut received during amputation of a thigh for tuberculosis of the knee joint." Dr. Porter's paper is an excellent one, expressing view, which are not partisan but exhaustive and well digested. The great point of our work in the future must come in the shape of prevention, the insidious, destructive element of tuberculosis has so slight a basis at present in the direction of cure, that it has acutely drawn our attention to what is better than cure, prevention. The bacteriologist has carried us into broader realms of work and thought, and opened up preeminently practical paths both in the application of direct and material agencies in cure and prevention.

The new relationship between micro-organisms and ptomaines suggests still newer fields of research; this impalpable potent dust by which we are surrounded may be in many instances cauterative inaction, intense flying ptomaines, infective in character. Whether the source of many evils be micro-organisms or ptomaines, the active agent has not been proven; anyhow the attempt to prove specific elements in disease is certainly an attempt in the direction of tangible results, and to my mind strongly practical.

Dr. W. G. Moore.— There is one thought suggested by the paper, that I wish to refer to, that of auto-infection. If I understood Dr. Porter aright, the primary attack is usually found in the lungs, the tubercular laryngitis being the result of the contact of the bacillus or specific poison with the denuded larynx.

Dr. Porter.—Not as rule, yet I believe it is possible.

Dr. Moore.—The idea of the circulation of the bacillus through the medium of the blood comes to me. Does it circulate as an entity, or are the ptomaines carried to the various parts of the body through the medium of the circulation, or how does it reach these parts? The question of the contagiousness of the disease is the point in the paper, and the distinction between contagion and infection should be insisted upon. Syphilis is a contagious disease; it is not an infectious one. It comes as result of direct contact, not through an atmospheric medium; so with gonorrhea. I do not believe it is possible for gonorrhea to be contracted except by direct contagion.

Dr. Alt.—How about gonorrheal conjuctivitis contracted through powder in the air?

Dr. Moore.—We do not have any powdered gonococcus circulating in the air, admitting that the gonococcus is the specific poison in this case. This question of contagion is the one upon which we should lay especial emphasis and which we should investigate. It is a common practise with patients to spit upon newspapers, which children are allowed to carry away. If it is possible to subject a child to phthisis by this means, it is the duty of the physician to protect the child. Claude Bernard demonstrated that the disease could

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be produced by the injection of laudable healthy pus.

Dr. Outten.—When you discuss nodular tubercle in the lungs there is a question as to its distinctive nature to be considered.

Dr. Moore.–The presence or absence of the tubercle bacillus decides whether the nodule in the lung is tubercle or inflammatory deposit.

Dr. Love.—This contagious feature of tubercle is an important one I think principally in its bearing on heredity. How many cases have been attributed to heredity that might have been charged to contagion? How many children of tubercular parents have gone shaking and trembling through life fearing for their future, when as a matter of fact, had they known that tuberculosis had possibly as little to do with heredity as scarlatina they would have been much more comfortable. My observation leads me to concur with Dr. Porter in the opinion that laryngeal phthisis is a late expression of tubercular phthisis; that it is secondary, not primary. The illustration of the much married man who procreated to excess, brings to my mind and I believe the observation is common to us all—the fact that tubercular patients are prone to procreative efforts. I think I have seen a suggestion that possibly this amorous tendency was due to tuberculous deposit in the procreative organ, and that being true, it has seemed an explanation of the fact.

Tubercle in the testicle is not infrequent. I believe it is a notorious fact that consumptive men have such strong amorous tendencies in all stages, and in some cases to the very last. As regard the contagiousness—I saw a case, a gentleman, ill for weeks apparently with typho-malarial fever, which at a late period developed phthisis, nursed by his wife, who had an infant fifteen month old, and this child before the father died developed tuberculosis and died, shortly after the parent: contracted not by heredity, as it was prevous to this robust, but by being confined in the room where the father was ill, not going out because there was no nurse to take it out. This may have been attributed to heredity in the old belief, but it was evidence of conta gion to my mind and demonstarted the impor tance of isolation in the treatment of thes cases as well as in scarlet fever, measles, etc though not to the same degree. Koch ha unquestionably demonstrated the existence o the germ of tuberculosis.

Dr. R. M. King.—I was exceedingly wel pleased with the paper read. The paper in dicated that the doctor had studied his sub ject, and brought to bear the result of much experience in the treatment of phthisis. The word portagious does not throw much light on the subject. The whole matter hinges on the question as to whether there is a specific morbific agent as the cause of phthisis. If this is not proved, we could not prove the contagiousness of the disease. If we can prove this, it seems to me beyond question that it is contagious. We might differ as to theory but there is no difference between the three terms. Infection is derived from in-*ficio*, meaning personal contact, while contag ion comes from *contingo* which means con tact—from inhalation as well. If it can be established that there is a distinct virus as in syphilis or small-pox, we can certainly prove that phthisis is contagious or infectious. But Dr. Hughes says, that the subject of the bacillus was not known to the fathers; but some of them did know that there was a living organism which produced this trouble. I must confess that my own observation leads me to believe in the trasmissibility of pulmonary phtisis and from the report that was made by Dr. Reich that a midwife sucked the mucus from the mouths of babes and then blew her breath into the larynxe producing phthisis in every case. I this is not the result of contagio we are unable to explain it o any other hypothesis· It is posible the trou ble may not originate from the same caus given by Niemeyer, but from a peculiar condi tion of the blood, from vitiated atmosphere heredity or malassimilation. All these facts enter into this condition; yet whether here-

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dity is capable of producing it I am unable to say.

Dr. Hulbert.—In explanation of the question I asked as regards the point of infection, I wish to state that my observation has been that all cases of laryngeal phthisis have given a history of chronic laryngitis extending over some period of time and previous to some lung complication. While I admit that the larynx might be a good soil for the implantation of the becillus it seems to me that there is some weight in the fact of the inflammation having proceeded in a chronic from that there would be an inocculation there previous to the inoculation of the lung. I have had personal exprience in the case of a sister-in-law who I know had no lung complication at least five months, during which time she had chronic laryngittis, in the other cases my observation has been of like character, and I believe that primary tubercular largngitis is not a disease of such rarity. It is common for the tuberculosis to manifest itself previous to the lung manifestation. That belief would establish the opinion that tuberculosis was contagious, and again it would seem possibly in the natural order of things, that the larynx would become affected before the lungs, if we admit that the contagion is received through the respiratory tract. Certainly that part of the body would receive the first impression of the tubercle bacillus. It would be a good stopping place on account of the manner in which the air is carried in through the slit like opening of the glottis and the necessary friction, that occurs there. That seems to me a still further reasonable opinion, if we consider that the necessary soil must exist before the contagion of phthisis may have any effect. I dont see why the contagion would pass that and stop in the lungs and I simply state that it has been my experience that the larygeal disease occurs previous to the complication in the lungs.

Dr. A. H. Meinsenbach.—I think Dr. Porter's paper covered the ground in regard to the tuberculosis as to what we know of it, yet there is one unfortunate fact, that experiments have been made on animals that are known to be particularly subject to phthisis, and there is only one case where direct inoculation has been performed on the human system. Until more experiments have been made in this direction, it will remain sub judice. The contagiousness of tuberculosis must depend on the character of the soil. If it were so great as some say, it would be a very sad fact for the human race, and one of primary importance. We all know that in smallpox and scarlet fever which have specific poison, one person may go within the range of that poison and not be infected, another person may only put his nose into the door and go home with the disease. In order that the virus of tuberculosis may be effective, the condition of the patient must be such that it will be readily responsive to it.

Dr. Outten.—How do you explain the phenomena of catching cold? You expose a certain number of individuals to the same influence, one contracts pneumonia, another laryngitis, etc., what is the cause of that?

Dr. Meisenbach.—Simply the local resistance of each part. There must be a susceptibility of a part, together with the condition of the system at that time.

As to the question of heredity, I do not think we could throw that away as a factor. I think there is a predisposition to the transmission of disease just as in the transmission of characteristics of the body or face.

Dr. J. R. Lemen.—Is it not the scrofula that is hereditery, rather than the tuberculosis?

Dr. Meisenbach.—Can you draw the line so sharply between the two?

Dr. Lemen.—Is that distinction not recognized by scientific men?

Dr. Meisenbach—Yes, but you cannot draw the line so strongly. Scrofula is always allied with tuberculosis. If we are to assume that cancer is transmissible we have just as much right to say that phthisis is. Of late it is said that a specific virus is the cause of cancer.

Dr. Hughes.—I want to correct Dr. King in regard to an expression which he attributes to me. I made an assertion that our ancestors

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recognized the communicability of phthisi s, before anything was known about the bacillus, not about living organisms. In regard to the communicability of phthisis the clinical fact must not be lost sight of,that there is an organization which furnishes a receptive soil;undoubtedly we are enabled to pick out in certain families, invidual members who are predestined to become victims of phthisis. That predisposition is a factor, cannot be gainsaid. This is a position which has been taken by the distinguished bacteriologist Formad, of Philadelphia. Regarding the question of susceptibility,the experiments which have been made on guinea pigs, etc., have been made under conditions which predispose these animals to this disease.

Dr. Bond.—In those experiments pus, degenerated liver, etc., have been used. No knowledge was possessed as to the bacillus theory at that time, and it may have been that those specimens contained bacilli, and yet it was not known.

Dr. Hughes.—That is true, but the point is that these inoculations have been made under circumstances which favored their susceptibility. The ones made upon animals that were restrained of liberty—confined. To determine this communicability to animals they should be surrounded by conditions which are natural to them. Dr. Eskridge, of Colorado Springs, states that in certain altitudes in Colorado no original phthisis was found. The majority of insane persons die of phthisis, after the resisting power of the organisms begins to fail. The question of family and frequent organic decadence is notably all there is of inheritance.

The bacillus of tuberculosis finding its way into the air-passages of the ordinarily healthy individual, not sendentary in habits of life, reaches a surface which is more resistive because it responds reflexly to the impression of foreign bodies, mucus is thrown out as soon as the bacillus invades the part and in the chink of the glottis it excites expectoration and it is repeatedly thrown out; all of us have inhaled the poison of tuberculosis over and over again, and if active secretion of mucus and reflex irritation of coughing have taken place promptly, it has been promptly thrown out. The reason phthisis usually begins in the lungs is because it is more difficult to expectorate from them than from the larynx. Brehemer makes the statement that from his observation of over two thousand cases he does not regard phthisis pulmonalis as an infectious disease. It is well for us to have the records on both sides.

Dr. Bond.—The fact, that foreigners coming to this country are more liable to phthisis than they are in their own country, may be accounted for,by the fact,that when living in Europe they lead outdoor lives; have to struggle for existence, feed on nutritious food sufficiently adapted to the requirements of the system. The Irish are given to personal gratification; in consequence of the greater opportunities for these pleasures in this country than in Europe, their strength of resistance is diminished. The Germans are abstemious even in this country.

Dr. Moore—What is your opinion of the possible infection of the fetus in utero from the father?

Dr. Bond.—Not a single case of congenital tuberculosis has ever been discovered. If we could discover a single case, we would knock the bacillus theory in the head completely.

Dr. Porter.—I chose a new word because it conveyed the idea that I wanted to express. Whether phthisis is portagious or contagious is a minor point provided that you recognize with me the fact, that by prophylaxis we may do much. In some points we differ, in the main points we agree. It is by the study of prophylaxis in a practical way that we advance, as well as by the investigation of disease already determined.

In presenting the subject of the contagiousness of phthisis I do not assume the position that it is a dangerously contagious or infectuous disease, but that it might be thus communicated,and if found by experiment as has been proven that tubercle may be transmitted from one animal to another, even admitting that the animals chosen are prone to it, it is possible that it is communicable al

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in man. While I don't believe there is any necessity for considering the matter of isolation or of treating phthisis as we do some of the more contagious diseases, yet the object of this paper is to present the necessity of so guarding those who may acquire phthisis, by coming in contact with phthisical patients, as to prevent them from taking the disease. It is gratifying to know that discussions of this subject have not been without result, and in the two decades preceding 1870, deaths from phthisis have been very materially diminished, accountable to better care of the cases, and of the greater attention that has been paid to hygiene, assimilation and diminishing waste.

PORTAGIOUSNESS OF PHTHISIS.

Remarks by Dr. Y. H. Bond in Discussion befors the Medical Press and Library Association on Dr. Porter's Paper.

I desire to take issue with those speakers who have expressed themselves in a depreciatory manner as regards the influence of heredity as a factor in determining this disease. If we pay no heed to heredity we throw aside one of the leading results of observation upon this subject, a result justified and attested by many years of experience and close observation. As bearing upon this question, statistics of Brompton Hospital, compiled by Dr. Quain, contrasted at the same time with statistics of insanity, may be pertinently cited. They show that among the lower classes hereditary predisposition (that is where one or both parents were affected) was traced in 25 per cent. Researches among 1000 cases of the upper classes shows 12 per cent of direct hereditary predisposition, and 48 per cent of family predisposition.

Family predisposition is more common among women than men in the proportion of 57 to 42, comment upon which fact will be reserved until a future time, when I can make use of certain facts in this connection, developed by a more extensive review of the general statistics of the disease. Transmission is more common through the mother than the father; but where one parent alone is affected the father transmits more readily to sons, and the mother to daughters than the converse. These conclusions of Dr. Quain's are supported by the observations of many others.

Let us see what are the statistics upon the disease in general, and the lessons that they lead to.

In 1880 the proportion of deaths from phthisis in the United States was 12,059 in every 100,000, and in England 9,141 in every 100,000. Taking these two countries as a basis, we may assume that the world over, about 7 per cent of the deaths are due to phthisis. Thus we see that in spite of our efforts for the last 2400 (?) years, one fifteenth of the human family fall a prey to this fell destroyer. Hippocrates, whilst emphasizing the ravages of the disease, gives no statistical data. The first statistics were furnished in the 17th century in the historical survey of the diseases of London, by Thomas Bateman, wherein a Dr. Heberden states that in 1669 the deaths from consumption were to the whole as one to about 6.2, in 1749, one to about 5.5, in 1799 one to about 3.8, in 1868, one to about 3.6, and in 1818 one to about 4.2. In the beginning of the present century Dr. Willan gave the percentage of deaths from phthisis in London as from one-half to one-third for the winter months. Recurring to the statistics for 1880 in England, 9,141 out of every 100,000, it will be seen that there is a marked improvement in the results. Bearing upon the subject it will be seen that the deaths from this disease are nearly twice as great among the foreign element of our country as with the native born. In Rhode Island, according to the health reports of that state for 1880 one person, in every 486 of native parentage died of consumption, while one in every 286 of foreign parentage died of the disease. According to the United States census reports for 1880, out of every 1,000,000 of deaths 242,842 males and 302,046 females died of consumption, representing all nationalities and colors. Among the colored race every million deaths represented 248,179 males and 326,973 females as having perished of this

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disease. Among people of Irish parentage 309,507 males and 375,636 females die of consumption—German parentage, 249,498 males and 254,958 females to every million deaths. Thus it will be seen that the Irish have the largest percentage of deaths, and that the preponderance is always in favor of females. Serving to enunciate, as I believe, the influence of heredity—for whilst it may be argued that the indoor life of females constitutes with them the determining influence of predisposition, it must at the same time be conceded that such a feature of life would be calculated to intensify and to insure the retention, perpetuation and development of inherited tendencies, whilst the salutary influences of out-door life would be likely to result in the elimination or abeyance of inherited deficiencies.

In support of the view that a special hereditary deficiency constitutes one of the leading conditions, if not the determining principle, in the development of phthisis, and at the same time as illustrating its bearing as a condition for the operation of the principle of contagion, I will call your attention to observations in connection with Brompton Hospital, of London; a hospital that has been in existence for 36 years, capacity nearly 400 beds. The history includes all those who were connected with the hospital as physicians and nurses, etc. During this period not one case of the disease could be traced to the hospital as the source of contagion. Dr. Brehmer, in his work on the Etiology of Pulmonary Tuberculosis states that in the town of Gerbersdorf, where his hospital is located, the mortality rate of the native inhabitants from phthisis 20 years ago, at which time the hospital was established, was 50 per cent greater than at the present time; notwithstanding that during that time there have been present about 12,000 consumptive patients who have freely mingled with the citizens. Now, what is the lesson that these valuable statistical observations teach? They teach us this, that when regarded in connection with the knowledge that we possess respecting the part that the bacillus tuberculosis plays in the production of phthisis, heredity or a certain inborn shortcoming in most instances supplies a condition of system the existence of which is almost a *sine qua non* for the operation of the bacillus tuberculosis.

If we were without any facts attesting the significance of the theory, that the bacillus tuberculosis was a necessary factor in the development of phthisis, we would have to conclude that the lesson taught by the statistics referred to, consisted in the decision of the question that phthisis was not contagious—I am not one of those who concur with Dr. Richardson in attributing small importance to the bacillus theory—I think, that we are decidedly indebted to our German brethren for their bacterial investigations of disease and that the field is a promising one—I think that the facts pertaining to bacteriology are such, that Dr. Richardson's query "what have we done to be visited in the heavens above in the earth beneath, and the waters under the earth with the pestis bacillorum?" is scarcely a pertinent one. He says: "It will not be long before the bacillus of pregnancy will be discovered." And thus it will be seen that by attaching due importance to the bacillus theory of infection, and at the same time respecting the evidence against general contagion, we are driven to the conclusion that hereditary predisposition is the determining condition of contagion. I believe that every well constructed line of argument, in connection with this subject, converges to this conclusion.

A disease that carries away such an immense proportion of the people—no section being exempt from it.

Dr. Alt.—How about high altitudes?

Dr. Bond.—Cases of consumption develop everywhere—Of course there are sections in which consumption is more prevalent than in others. In certain portions of Pe it prevails to an alarming extent—ascribed in a great measure to the non-porous charcter of the soil. If the bacillus alone could produce consumption, independently of the agency of hereditary predisposition, the whole human family would perish very soon—for such

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the rapidity of multiplication of bacterial life, and such the number of sources of infection—consumptive bakers to infect our bread, consumptive cigar makers to infect our cigars, consumptive dress-makers to infect our clothing, consumptive dairymen to infect our milk, etc., that the disease would be everywhere and with every body, in its destructive march.

So omnipresent is the bacillus that isolation can accomplish nothing in its prevention or comparatively nothing, as was demonstrated by the quarantine measures carried out in Naples for sixty years, up to forty years ago, with negative results.

Regarding the causes, it may be said that those who have in-door occupations are more prone to consumption, than persons whose occupations cause them to be out-of-doors most of the time, and even to the consumptive out-of-door life is very beneficial, as witness the influence of gypsy life.

Dr. Love.—Is not that the case with all infectious or contagious diseases?

Dr. King.—Was it not demonstrated during the war that diseases, small-pox, etc., were more successfully treated in tents than in hospitals?

Dr. Bond.—Yes, with certain qualifications. Reverting to causes, I will say that no nature or condition of system, is more marked, or of more constant association with this disease than that involving the absence of the hydro carbons—those elements upon which we rely to give weight and proportion to our patients, typified by starch, gum and sugar. And I am disposed to believe that the predisposition is resolved into the lack of these elements, to a degree sufficient to meet the physiological requirements of a proper nutritive, and disease resisting basis, in certain special directions, imposing that state of non-resistance to bacterial invasion, constituting the condition of susceptibility to the disease. Disturbances of digestion, which exclude the appropriation of hydro-carbons, are of a special kind. Many persons suffer from deranged digestion, but unless it be in this special direction, the appropriation of carbo-hydrates is not withheld. It has always seemed to me a mistake to disallow starchy food, though I recognize the principle that has governed those who have discouraged their use—mal-digestion. I think that a direction of investigation that perhaps will be pregnant of more decided results in the prevention and cure of phthisis than probably any other, will be found in the institution of some measure or means of introducing into the system this hydro-carbon element of nutrition.

Certain efforts at their introduction have been made through the agency of the principle of predigestion, but the results have not been satisfactory, for the reason, as specially pointed out by a recent writer in the *Dietetic Gazette*, that starches in the natural course of digestion are transformed by the amyolytic ferments of the saliva and pancreatic juice into dextrine and then into sugar—this process has been perfectly imitated by the manufacturers who present their food in the form of malt-sugar. Just here the difficulty arises. "In normal digestion so much time is consumed in these processes of conversion of starch into sugar, that when the sugar, an instable element results, the digestive surfaces are ready for its immediate absorption, whilst if taken in a predigested form, the surfaces are not ready for its absorption and acetous or vinous fermentation takes place. The writer referred to says, any food entering the system will undergo the various stages of fermentation.

If ingested in the form of dextrine, there is no danger of the abnormal fermentation until changed into sugar, and when the change takes place the organs are in a condition for immediate absorption, but if ingested in the form of malt sugar fermentation is very apt to take place before the organs are sufficiently aroused for absorption to commence. These observations seem to me to possess unusual significance. For as Foster says, dextrine does not undergo alcoholic fermentation until it has been changed into malt sugar—may not the conclusion be justified that dextrine is the form in which the carbo-hydrates should

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be administered to consumptives, and those possessing an inherited predisposition thereto? The smallest amount of digestive secretion will accomplish its conversion into malt sugar, ready for absorption at a time when the absorbents are ready for its appropriation.

MEMBRANA PUPILLARIS PERSISTENS.

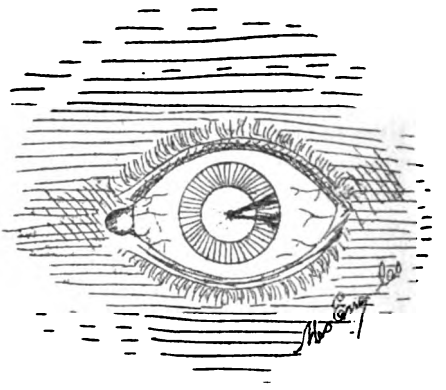
BY R. L. THOMSON, M. D.

With our present facilities, that place within the reach of every physician, the medical literature of the day—literature teeming with expressions of pride in the wonderful advances made in medical science, it is difficult to believe that there are physicians to-day practicing on principles of twenty years ago. Yet a case that recently came under the observation of the writer demonstrates this to be true.

Mrs. E., æt. 23, who lived at a distance from the city, reported at Dr. David Webster's clinic at the Manhattan Eye and Ear Hospital New York, and gave the following history: About four months previous to this time an itinerant oculist divided the internal rectus of her left eye for strabismus, with a good result. The wound healed kindly within a week. On a bright day about a fortnight after the operation, her eyes were dazzled by the light; she became alarmed and called the family physician, who placed her in a dark room, with instructions to remain there till she recovered. He told her that if she were exposed to the bright light, she would certainly go blind. Four months later she was brought into the clinic, being supported by others, as she had not strength to walk alone.

The intense anxiety, that she endured while imprisoned in the dark room, so undermined her nervous system that any unusual noise would almost throw her into convulsions. Her friends had to talk in an undertone in her presence. She had been subject to nystagmus since childhood, and any excitement would make her eyes "dance as if they would jump out of her head." She lost her appetite, eating little more than enough to sustain life.

When she entered the clinic, a cotton cloth was tied over her eyes, and over this was a



heavy black veil doubled a number of times. When the folds were removed, she was greatly surprised to find that she could see and that she was not "struck blind." A superficial examination revealed no disease. A pair of smoked glasses was given her, and she was placed in a light room with instructions to sit with her back to the window. The following day a thorough examination was made, and we found Membrana Pupillaris Persistens, opacities of both cornea and nystagmus.

The opacities were old, and as she had had sore eyes when a child, they were doubtless produced at that time.

The patient rapidly improved in appetite and strength. She enjoyed the noise and bustle of the street. The fourth day after entering the hospital, she spent in Central Park. At the end of a week the nystagmus was much improved and the patient strong enough to be discharged. There was no record of her vision before she was placed in the dark room, but the day after the bandage was removed she said she did not think she had ever seen better.

Had her family physician kept up with the literature of any one good medical journal in the land, he would have spared his patient four long months of suffering.

As Membrana Pupillaris is a rare congenital affection I give herein a cut illustrating this case. In the left eye the membrane

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covered the center of the pupil, and the vision was reduced to counting fingers.

For some reason, not yet explained, during fetal life a thin membrane is formed in the anterior chamber of the eye immediately in front of the iris, covering the pupillary space. Normally at the seventh month of gestation this membrane becomes absorbed.

In rare cases the process of absorption is arrested and a portion of it remains.

It is easily recognized by oblique illumination.

Dr. C. R. Agnew reported a case in '78, a beautiful cut of which can be seen in the first volume of Loring's recent book on Ophthalmology.

In an interesting case shown the writer by . W. Ring of New York, a strip of membrane was stretched across the lower segment of the pupil. When the pupil contracted the membrane became relaxed and floated in the aqueous. It did not interfere with vision.

KEEPING BABY QUIET.—A lady in Pensacola, temporarily deprived of the services of a nurse, has adopted a novel mode of keeping baby out of mischief and in content at the same time. Placing all his playthings in a large washtub, she puts the little fellow in with them, and there he plays, unable to get out and perfectly happy until he gets sleepy or hungry. The father calls the boy Diogenes. —*Savannah News.*

ANOTHER blow at American industry may be constructed from a recent "warning to the public," by the police authorities of Berlin. From the official advertisement, it appears that, under the name of "Warner's Safe Cure," a brown liquid in bottles of about a pint capacity has been recommended as a remedy in kidney affections, and sold at the rate of four marks, or about a dollar, per bottle. Examination, it is stated, shows that the remedy consists essentially of "American wintergreen" (chimaphila?), and its value is, at most, two marks a bottle. This is an indorsement rather different from those familiar to our newspaper readers, signed by aldermen, clergymen, and cabinet ministers, but quite as instructive in its own way.—*Medical News.*

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SATURDAY, FEBRUARY 18, 1888.

A DISINTERESTED (?) PLEA.

The REVIEW is in receipt of a circular printed under the letter head of "The American Publishers Copyright League" presenting a "Plea for International Copyright on Behalf of the best Interests of the Writers, Makers. and Sellers of Books.'

This league claims to be working for the interests of "American Authors" Foreign Authors" "American Readers," the "American Book Trade" and last of all for "Justice and Wise National Policy." A most generous and disinterested work indeed and upon superficial view worthy of all commendation.

When we scrutinize closely this circular and find that it is signed by the League's executive Committee composed entirely of the following: Appleton, Putnam, Scribner, Harper, Houghton, Lippincott, Randolph and Estes, we begin to think we can trace the faint outline of the traditional "African in the Fuel-heap."

We find each of the most powerful publishing houses of New York, Boston and Philadelphia represented, and we recall the fact that such as they are in the habit of suffering great agony of spirit in behalf of the sorrows and wrongs of others, and they have ever longed, yea yearned for "justice and a wise national policy."

Stripped of all subtle sophistry and puerile pretense what does an analysis of this circular of the so-called American Publishers League reveal?

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The old, old story that has been poured into our ears these many years viz. "Protection of American Industries."

These large firms have been pirating the world for an age, publishing books the subject matter of which cost them nothing, demanding and receiving enormous profits, having it all their own way, so to speak, until new Richmonds came into the field, who were satisfied with a reasonable return upon their investment; witness the fact that Bermingham, the medical publisher, presented books to the public for from fifty cents to one dollar that had previously been sold for three and four dollars by this most generous League, and were doing good service in the direction of putting valuable books within the reach of all until crushed out of existence by the gigantic monopolistic force of these long established houses.

With their great wealth they are able to dictate terms with foreign authors, and, of course, no longer desire free opportunity for publishing the works from abroad, since competition has so cut and reduced their revenue.

With an International Copyright secured, they will be nicely protected against the "small fry" publishers, and the latter will be swallowed up in their greedy maw.

It is not long since we heard a great "hue and cry" from the immensely rich drug manufacturers of the East against the removal of the duty from quinine. They said they would have to go out of business, and a poor quality of quinine from the other side would flood the country. In spite of their protestations the duty was removed and quinine dropped from five dollars an ounce down to fifty cents. Suffering humanity gained, and those who clamored, lost a large part of a profit which bordered on robbery, but they are still engaged in the manfacture and are still thriving, and long may they thrive.

Books, knowledge, medicine, food and clothing are necessary to proper existence at this time, and no monopoly engaged in their manufacture should be nourished by the government.

It may well be a question whether th e time has yet come for the tearing down of all barriers between the nations of the Earth as regards the matters of manufacture, trade and commerce, but in respect of the necessities above mentioned we are persuaded that it should be a "go as you please" "a free for all" race.

The author who writes a book that will not sell itself without governmental aid had better go to plowing corn. The manufacturer of articles of necessity above indicated who demands state protection should he refused it and advised to invest his money in other directions if he thinks it best.

The time has come when organized centralized capital must cease to demand protection; without it Darwin's law of the survival of the fittest will surely obtain. All physicians, philanthropists and statesmen and common sense people in general should at least insist upon free knowledge, free books, free physic, and free surgical instruments based upon the needs of humanity and the greatest good to the greatest number, the American Publishers Copyright League to the contrary notwithstanding.

I. N. Love.

Education and Registration of Midwives.

Dr. J. H. Aveling recently delivered a lecture at the Chielsea Hospital for Women on "The amelioration of the present condition of midwives." (*Brit. Med. Jour.* Jan. 21, 1888.) Dr. Aveling called attention to the fact that 4500 women die in child-birth in England and Wales during the year, and that whereas the death-rate is as low as 1 in 650 in lying in hospitals, and as low as 1 in 900 in one Charity, it reached 1 in 200 in cases treated at home. He thinks that this high rate of mortality is due either to the medical men attending or to the ignorance of midwives, and he inclines of course to the latter opinion, holding that if only properly competent midwives were employed, the death-rate might be reduced to 1 in 500; which means a saving of 300 lives each year. There are about 9,000

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persons acting as midwives in England and Wales.

He is desirous of seeing some system adopted in England, in which midwives would be examined as to their proficiency.

The statistics, by Dr. Aveling, as presented above are certainly worthy of serious consideration. In his efforts to reduce the mortality rate from disease he has the co-operation of every true physician. We differ from him very radically as to the proper method of accomplishing his object, unless perchance he desires by placing the standard of examination where it should be to prohibit midwives from practicing at all. We do not think their condition needs ameliorating. They are perfectly safe, bearing as they do a minimum of responsibility, being shielded by their ignorance from the stings of conscience, and from the law by the ignorance and leniency of their patrons.

To educate them in the art of obstetrics alone, would be to make specialists of them, and no one is prepared as a specialist who has not been thoroughly grounded in the principles of general medicine.

It is true that in nineteen cases out of twenty if a woman has a good nurse in attendance, she will do as well without the physician as with him, but the difficulty lies in the impossibility of determining before hand just what cases will require consummate skill. What physician is there, who has encountered a case of placenta previa, a funis, transverse or other mal-presentation, or a case of post-partum hemorrhage, who will say parturient women are safe in the hands of any but those *skilled* in their profession?

If midwives are to be educated, they should be compelled to graduate as physicians. To have a low standard of examination for them (and they can reach no other), and to register them, is but to add the endorsement of the profession to the increase of mortality among the middle and lower classes.

New Method of Treating Episcleritis.

Dr. David Webster of New York, reports in the *International Journal of Surgery and Antiseptics*, three cases of Episcleritis, in which he freely applied the *actual cautery* over the apex of the swelling, with the "apparent effect of aborting the disease, or at least, of greatly abbreviating its duration."

I was called in consultation by Dr. Smith, of Mt. Vernon, Ind., to see a case of episcleritis that had resisted treatment for more than a month. I applied the actual cautery as advised by Dr. Webster. The patient improved rapidly. At the end of two weeks, I learned that the eye was entirely well.

We confidently expect like results from further experience.

The profession is under obligation to Dr. Webster for adding to our list a new remedy for this intractable disease. The application is easy and quick, and produces scarcely any pain.

Medical Legislation.

We have either too much medical legislation, or too little. In one state the entrance to practice is closely guarded, while across the line the veriest quack and ex-penitentiary montebank is "protected" in his "rights".

In our own state, after much work and persistency, a law creating a "Board of Health" was passed, but local judges have paused in their utterance of work-house sentences to pronounce the law "unconstitutional', and the legislature in its wisdom has cut off the appropriation.

We venture to say that not one physician in ten can name the present members of the Missouri State Board of Health.

Whatever may have been the cause of failure of efficient work in the beginning, stipendiary starvation is sapping the strength at present. We do not find fault with the members of our Board; they cannot, they should not work for nothing. We do hold, however, that that commonwealth is wisest which protects the health of its citizens as well as their property.

It is not asking too much of our law makers that they having once recognized the im-

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portance of medical legislation, should either care for the work, or repeal the law, and not call members of the profession to the high privilege of making bricks without straw.

Do we need more, or less legislation? When every city in the state has its advertising pretender, when the fellow with the "magnetic probe" and the long haired, hard cheeked "Indian Doctor" are gathering in the dollars from the ignorant, when the courts protect these parasites, and guarantee them their "constitutional rights" to defraud and obtain money under false pretense, when the principal revenue of the county paper is the "patent inside" with its full display of patent medicines, we say we want some active, easily applied, close filling legislation, and the sooner the better.

The profession has enough to contend with in its daily warfare with disease, and in patient searching after truth, without having to drag this huge devil-fish of humbug and chicanery.

As to the matter of regulating practice, in the different states, we believe that this may be easily attained.

Let the same standard be fixed by each state, and a registered certificate from one state entitle the holder to the right to practice in any other.

Make it possible to cancel a certificate for gross wrong doing, as it is now possible to disbar an attorney for unprofessional conduct.

Create a law enforcing the supervision of patent medicines, as is now in many of the European Countries, where a scheme to defraud the public by means of a worthless nostrum is a police offense.

Make such laws plain, concise, and general, that one state may not be able to drive its quacks into another, but that all may be equally protected.

Finally, let the American Medical Association recomend united action to the different state associations, and put an earnest working committee in charge.

WILLIAM PORTER.

STATE BOARDS OF HEALTH.

The Ohio State Board of Health will hold its first sanitary convention next week. This is a new field for state boards, but it is in the right direction. It is now conceded by all scientific men that many diseases are preventable by attention to hygienic surroundings, and the best manner to instruct the public in these matters is by agitating the subject, and this is most properly done by those having authority to act. It would be well if the various health boards in Missouri were organized so that they might work in unity, with the certainty of accomplishing much good that is now impossible. The state board should be the organizer, and seek to gain the co-operation of the boards through the state. Of course, the present board is not in condition to expend money for any purpose, owing to the narrow brained policy instituted by the last legislative body. These statesmen felt it their duty to reduce the amount allowed the state for the protection of the people's health.

They were probably afraid that the tax on the public would be too great if compelled to support the state board of health, and submit to their railroad legislation.

However, it is well to proceed as we can, and, perhaps, at some future time the members of that body will think more of the people and less of the corporations.

At this point I want to refer to the immense good work done by the state board of health in Illinois. I am particularly pleased with the sanitary surveys they are having made, and by their suggestions on "Prohibition of Emigration".

There are other valuable points which can not be noted because of lack of space.

J. R. LEMEN.

EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

I observe that the "course of study" committee of the St. Louis Board of Publ

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Schools is investigating the "cramming" process going on in the grammar schools. Important evidence is being elicited from teachers of long experience.

Miss Margaret K. Slater, head assistant of the Benton school, gave very intelligent information. One of her many pointed statements was the following:

"The text books on physiology I do not like, especially the first one in the lowest grades, which might make the children distillers and tobacconists, but not physiologists."

Miss Slater is right, the earnest, able and devoted ladies of the W. C. T. U. to the contrary notwithstanding.

This leads to the thought that as a field for dependent women there is nothing like unto the profession of teaching. She is especially adapted to it, and it is not so confining and exacting as to impair her healthfulness. The work itself bringing her constantly in contact with the minds of the young is splendid discipline for her, and helps to equip her for her proper place in life, that of mother. Every young woman, if profoundly impressed with the value of the experience to be gained, should be urged (whether dependent or independent) to undertake the work of teaching the "young idea how to shoot" for a longer or shorter period, as the conditions permit.

To what can we attribute the growing "unfashionableness" of matrimony more than to the failure of the women of to-day to appreciate the true nobility of motherhood, and their preference for stepping down among the rabble of men, fancying that they may there find a more brilliant opportunity.

The doctor who can slowly drag along the highway of professional life, never attending a medical society, never contributing to the columns of a medical journal, and rarely reading one, may rest assured of the fact that it is only a question of time until the procession will have left him, or trampled him into an unrecognizable mass, even though he may occupy a chair in a medical college. By the way, the time has gone by when either the profession or the public look upon a simple medical college connection in itself as evidence of the possession of the highest order of merit or information, owing, no doubt, to the superabundance of medical colleges in these latter days.

After the above was written the January number of Frank Ferguson's bright and breezy *Indiana Medical Journal* came to my sanctum wherein I find the following under the heading of "A Weary Doctor," viz.:

"The *Indianapolis Sentinel*, Nov. 27, 1887, quotes Dr. E. F. Hodges as follows:

'I don't care much about attending medical meetings. Oftentimes they make me very weary, and I don't wonder that newspaper men dislike to report them. A physician may learn a great many things at these meetings, and also out of medical books, but good common sense and a close observation of the various phases of the disease with which a doctor's patient is afflicted, goes a greater ways.'

The *Indianapolis Evening News*, Nov. 28, says:

'Dr. Hodges has a big round head when he says it makes him weary to attend medical societies,' etc.

"These are strange sentiments coming from the Professor of Obstetrics in a Medical College, and lead us to remark that the physician who rates 'good common sense' and 'close observation' as of more value than the knowledge to be gained from medical societies and medical books, may have a 'big round head,' but it is doubtful if he uses it to the best advantage either for himself or for his patients."

"Weary doctors" are apt to have weary patients, and many moons will not have passed ere their patients will take a rest, and give them a rest.

If the medical man varies the monotony of his life by mingling with his fellows, exchanging views, rubbing off his rough corners, he will not get into ruts of rustiness and weariness, but he will feel bright, strong and enthusiastic.

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Speaking of the W. C. T. U., recalls a recent statement of the Rev. Dr. Howard Crosby, of New York, to the effect that he had lately received a letter signed by the president and secretary of the Woman's Christian Temperance Union, informing him that they had held a prayer meeting, in which all had prayed that "he might either be converted (to their prohibition views) or 'removed' by God in short order. The Rev. doctor has for years been a worker for temperance in the truest sense. He favors a very high license and the practical abolition of a majority of saloons rather than prohibition, unlimited drinking and no revenue. The fanatic Guiteau pursued the line of thought above indicated. The query may well be indulged whether the meek and lowly One whom the W. C. T. U. profess to serve, would endorse such intemperate course as they are pursuing.

On another page in the REVIEW appear some remarks upon the relations of druggists and doctors. After the same was written my eye chanced to fall upon a letter in the *Western Druggist*," signed N. H. P., from Hoboken, N. J., wherein occurs the following, viz.:

"Pharmacy is in a flourishing state. The regular trade is rushing into grocers' and notion stores. A sale of a bottle of "chill medicine" at the request of a customer, results in a general boycott by the physician. The grocer and notion stores can sell drugs without restriction, but the druggist is hemmed in by pharmacy and certain medical practice laws. Of one thing druggists may be certain, too close intimacy with the doctors means ruin. The doctors will either bleed him to death or hang around his store, and drive his trade away by the combined influence of rum, tobacco and "percentages."

The entire letter gives evidence of the fact that the regulations in the dominion of New Jersey are very lax in the direction of pharmacy. Birds of a feather flock together and rarely "gather any moss."

A drug store which runs to "rum, tobacco and percentages" will always be the rendezvous of the vagabond camp followers and sutlers of the medical profession.

A doctor should never go to a drug store except on business—the business of seeing that the druggist knows his business, and if offered a drink he should then make it his business to blacklist that druggist. The best place for a doctor to "hang around" when not visiting patients is his own office.

A new candidate for journalistic honors appears upon the medical horizon under the sponsorship of the earnest and indefatigable Milton Josiah Roberts, of New York.

The title of the journal is a broad gauge one; evidently no "pent up Utica" will confine its powers. Milton Josiah "wants the earth," if the name of his bantling is expressive of his desires, and I hope he will get it with his *International Journal of Surgery and Antiseptics*. The initial number stands out well, with good papers from Jarvis, Webster, Rockwell, Corning, Mittendorf, Roe and Roberts. The make-up is quite unique, the cover being a sort of baby-blue, the title page artistically decorated with a good wood cut of Sir Joseph Lister, surrounded by festoons of antiseptic gauze, roller bandages, and a very striking and effective mingling of artery forceps, bone saws, trusses, drainage tubes, surgical needles, atomizers, fig leaves, etc. Barring the "shoppy" looking cover, too suggestive of the illustrated pamphlet of the itinerant doctor, your journal, friend Roberts, is extremely creditable, and it will, undoubtedly, fill a long felt want.

I learn from Dr. Frank J. Lutz, the president, that the annual meeting of the Missouri State Medical Society at Kansas City, in May, 1888, promises to be an unusually interesting one. Many excellent papers have already been promised. In the next issue of the REVIEW there will be presented a list of the papers promised. I predict the largest meeting in the history of the society, owing to the fact that the place of meeting is a most excellent one, and the president (Dr. Lutz) is a wide-awake worker from a-way-back.

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The possibilities of the electric light as a means of illuminating the interior of the body as a diagnostic aid are but faintly dreamed of now. The future has, doubtless, in store for us great developments in this direction. In the last number of the *British Medical Journal* there appears the following:

"Mr. Hurry Fenwick has lately used electric illumination of the male bladder and urethra for diagnostic purposes with considerable success. We are informed that he proposes to give a demonstration on a living subject and on "dummies," of the capabilities of the vesical and urethral lamps, as recently improved, at the next clinical meeting of the medical society on Monday next, Jan. 23."

The new drug, antipyrin, is one of the most valuable that we have had added to our medical armamentarium for many years.

While of great good as a reducer of temperature, it is even more valuable as a soother of the nervous system, and a pronounced reliever of pain. It can be given in five or ten grain doses in water, to adults, hypodermically to relieve a neuralgia, and is the ideal remedy for migraine. The periodical nervous headaches, or so-called sick headaches that some ladies suffer from, can be prevented or aborted by a dose of ten or fifteen grains. It has a great advantage over opium and morphine in that it does not check secretions.

As a remedy for the quieting of paroxysmal coughing in pneumonia, bronchitis and pertussis it is par excellence.

Ex-president Simon Pollak has assumed his old seat down among the regular members in the hall of the St. Louis Medical Society. For forty years he uninterruptedly occupied the one chair and desk to the right of the aisle in front of the president's rostrum. Only when he became the society's presiding officer did he vacate his favorite seat.

The suggestion in his valedictory address that the society increase their annual dues to ten dollars per year is a practical solution of the problem of securing a permanent home for the medical profession of St. Louis.

It is to be hoped that the happy idea of Dr. Pollak will be acted upon.

The evidence is accumulating from every direction which favors the antiseptic plan of treating infectious diseases not only locally but constitutionally. Dr. Henry H. Mudd, a leading surgeon of St. Louis, states that during the past year or two he has had more successful cases of tracheotomy in proportion to the number operated upon than formerly; he thinks possibly the favorable results may partly be charged to the fact that the majority of the cases have been under the constitutional and local effect of the corrosive sublimate treatment.

I have been thinking these many years that taking one consideration with another the life of a physician ought to be a happy one. In spite of the uncertainty in his work, in spite of cares, burdens, carping criticisms, unthankful clients, in spite of all, his opportunities for doing good to his fellow man are abundant, the constant association with the suffering and afflicted develops his finer feelings, his sympathies, his sentimental side,and he needs must become day by day a better man, or the reverse if he hardeneth his heart and permits his emotional nature to become atrophied.

A glance over the local column of the St. Louis *Post-Dispatch* last week, wherein was stated the fact that St Louis' most notorious abortionist was fined $100,00 in the Police Court for whipping his wife, emphasizes the latter part of the above paragraph.

I knew him well I thought sixteen years ago when we both graduated in the same medical class. He was an earnest hardworking student, who stood well in the estimate of his associates. One would have felt safe in predicting for him an honest,straightforward, successful career. But how mistaken their judgment. The secret of the terrible record made by this unfortunate man upon the pages of the St Louis Criminal docket, was after all due to an inordinate haste to be rich and

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the stifling on his part of all the better promptings of his soul.

The steps from being an habitual murderer of unborn babes to that of wifebeater was a short one. While deserving condemnation and punishment, there is something about his case calling for sympathy.

In conversation with my friend Dr. Bond a night or two ago we were discussing a mutual friend whom we both appreciate thoroughly. We know him as able, learned, honest, energetic and always true to his friends. I ventured to remark that I regretted that he permitted his sentimental and emotional nature sometimes to get the upper hand of him, and betray him into being abrupt and consequently frequently misunderstood. The doctor replied that he did not agree with me, that he was strongly of the opinion that strong men were frequently constituted that way, that there was nothing incompatible with intellectuality and true greatness, and sentiment, feeling and emotion.

Apropos to his view he quoted the following from the *Princeton Review*, regarding Dr. Samuel Johnson, who was carefully and freely photographed by Boswell, viz,—"It has become clear to us that one source of Dr. Johnson's greatness lay in the fact that he was, in the highest sense, a man of sentiment. His affection was equivalent to his intellect, and he felt as deeply as he thought. This is not the general opinion, but it is true. And it is only another proof that no man can come to much, who is not often unreasoning in his loyalty, and whose emotions are not powerful enough to lead him sometimes into absurdity." On second thought I guess Dr. Bond was right. The man who goes through life continually on tiptoe, for fear of treading upon some one's corns, will not make many enemies, but I question his value either as an intellectual force or a friend.

ANNALS OF SURGERY.

This is the only journal published in the English language devoted exclusively to surgery, and is ably edited by Prof. L. S. Pilcher, of Brooklyn, N. Y., and Mr. C. B. Keetley, of London, England, assisted by the most able surgeons both of this country and of Europe, all progressive surgeons should have this journal, see prospectus on add pages 17 and 18 of this issue.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Feb. 4, 1888. The President, Y. H. Bond M. D., in the chair. J. B. Prichard, M. D., Secretary.

DR. H. H. MUDD.—I shall read the history of the case which furnishes the specimen I present to-night, a fracture of the femur with rupture of the left femoral vein and artery. The patient entered the City Hospital at 3.30 P. M., Monday Jan. 23. Two hours before he fell four stories through the hatch way of an elevator. When brought to the hospital he was suffering from shock: the pulse was weak—130 per minute—respiration shallow—30 per minute; skin covered with perspiration, the extremities, especially the lower, cold; the left thigh was deformed, there being a sharp bend at the junction of the lower and middle third, the thigh was increased in circumference. Above the bend it was exceedingly tense, and could scarcely be indented with the finger. There was a tumor eight centimeters in diameter on the outer surface of the knee, and over the external condyle the parts were discolored, and there was a slight abrasion. Crepitus was felt at the point of deformity; no pulsation could be felt in any artery below the point of fracture; the patient's temperature was 37.4° C. General sensation was much diminished as far up as the knee and was entirely absent over the foot. The specimen presented shows a complete rupture of the femoral artery about the junction of the lower with the middle third of the bone and near the lower extremity of the femoral artery, just below the point of the complete rupture is a second, extending through one third of the calibre of the artery. The vein shows a longitudinal. irregular laceration extending across perhaps one half of its circumference. I think it is a little exaggerated now. It will be seen that the vein and artery were both involved. I find in the International Encyclopedia of Surgery—Ashhurst's, from an article written by Liddell this quotation. I quote it to show something of the status of the treatment in 1883 and 1886 because I think there is a change in the feeling of the profession concerning the proper treatment:

"Ligation of artery and vein simultaneously for venous hemorrhage: When a large vein is wounded and bleeding, Prof. Langenbeck recommends that, as an hemostatic measure the accompanying artery should be tied as well as the injured vein. He believes that when

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both artery and vein are tied, not only does gangrene not follow, but there is less disturbance to the capillary circulation than when the vein or artery alone is tied." He states that, by simultaneous ligation of both artery and vein. "An equilibrium is maintained between the arteries and veins until the collateral circulation is established. Two observations which I have already presented strongly support these views. One of them was a case related by the late Dr. George McClellan, in which, the femoral vein being lacerated, the femoral artery was ligatured, the hemorrhage was easily restrained by compression, and the result was successful. The other occurred to Prof. Agnew; in it the hemorrhage from a punctured femoral vein ceased on applying a ligature to the accompanying femoral artery, and did not recur. That gangrene is not an inevitable result, and is but rarely to be expected in such instances, is well shown by the cases of Prof. Grillo, of Naples, who included the femoral artery and vein in the same ligature in fifteen cases of aneurism of the ham or lower part of the thigh. These were all successful; while in fourteen other cases, in which the artery was isolated and tied alone, there were two deaths from secondary hemorrhage."

Again, "The main artery of the lower extremities is rent asunder without external wound much oftener then many suppose."

The indications for treatment in such injuries as that may be summed up under perhaps four heads, and under those four heads I find this statement:

"Compression of the femoral artery at the pubes, from its innocuousness, and the remarkable success which has attended its use, is far preferable to any other plan of treatment; and the surgeon should always make faithful trial of it, when practicable, before proceeding to operate with the knife."

2. "The old operation, that is, the ligation of the torn artery itself in the wound, above and below the rent in its tunic, although J.L. Petit performed it with success, is not admissible in cases of simple fractures. There is no pretext under which a surgeon can justify himself in voluntarily converting a subcutaneous into an open fracture."

3. "Ligation of the superficial femoral artery, at or above the middle of the thigh, as originally recommended and practiced by Dupuytren, is the operation which must be performed in cases of diffuse aneurism, resulting from fractures of the leg that are simple or unattended with external wounds, whenever compression of the femoral artery is impracticable or proven ineffectual."

4. Amputation at the knee should be performed, without delay, as soon as gangrene appears in the toes or foot belonging to a limb where this accident had occurred; and there is but one circumstances besides gangrene which makes this operation admissible for the lesion in question, and that circumstance is the failure of all other plaus of treatment."

From these quotations it would seem that the simultaneous ligation of the artery and vein does not materially increase the gravity of the case, but is rather a mitigating circumstance, and that gangrene is not so likely to follow as if only the artery were ligated. If the vein itself is injured and that alone ligated, the danger is still further increased, from secondary hemorrhage, and from giving way of the vein. Gangrene had already supervened when I saw the case, 48 hours after the accident. I thought possibly we might have the artery in such a condition that it would carry on the circulation and enable us to save the limb even below the site of the fracture. When I made an incision into the part I found a large coagulum of venous blood, and when that was detached arterial blood flowed. After finding the condition of the parts, with injury both to the artery and vein with gangrene already present, we amputated the thigh above the site of injury, and the patient is, in a way to recovery. Now what are the dangers of such an injury? First the danger of primary hemorrhage, which our patient had already passed. Second the danger of secondary hemorrhage. This we should pretty certainly have had in this case, if we had simply waited, as the coagulum, which was a large one was diffused in the tissues. For when it softened, we should have had the clot in the vessel itself breaking down, and secondary hemorrhage would have been the result. Now the question comes up, and pertinently I think, whether gangrene is less likely to occur if we depend upon compression, or ligature at a proximal point or a point of election, or when we cut down upon the part and free the tissues and ligature directly at the point of injury immediately. Shall we cut down upon a fracture? With a rupture of the artery, with such symptoms as we had here, I think we are justified in converting a simple fracture unto a compound fracture; that our proper surgical procedure is not to depend upon compression, but to cut directly down upon the injured part and free it from the coagulum to lessen the tension of the part cleanse it, and ligate not only the artery but if necessary the vein, thus giving an opportunity for the development of the collateral,

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circulation. The collateral circulation is more likely to be re established from an injury at one pointin the artery that it is at two. Every thing favors this plan of treatment, if we are safe in making it a compound fracture instead of a simple one. We have in the original injury conditions which favor sepsis; we have a large coagulum; we have the sheath of the artery itself dissected away from the coat of the artery by the coagulum which pushes back into the connective tissue and interferes with the nutrition of the artery itself; the tissues of the leg are disturbed in their nutrition, because we have loose connective tissue infiltrated by a dense firm coagulum which prevents free circulation and gangrene supervenes because of the interference with the circulation by the coagulum and the tension of the parts. The injury, if promptly met and treated gives no more reason for gangrene than would the sample ligation of the artery or but little more; it certainly would not if the wound can be maintained in an aseptic condition Once more I quote:

"In Gun-shot severence of the femoral artery with fractier of the femur "I believe it is always best to amputate without delay, because gangrene is almost certain to ensue if the limb be not cut off!"

It seems to me that without improved facilities for controling inflammatory affections about wounds, that we are justified in cases of fracture of the femur with injury to the femoral artery, or any of its large branches, in seeking at once the site of the injury to the vessel and placing a ligature about it. The collateral circulation is more readily devel oped than it would be if the ligature had been placed at any point at the site of election above injury. Danger of secondary hemorrhage is much less than if we trust to compression. Gangrene is much less likely to supervene for, cleaning out the clots, freeing the vessels from pressure we limit the inflammation which is sure to follow such extravasation of blood as we get from the rupture of a large artery. The increased difficulty of ligation at the point of injury should be no bar to the eaaly adoption of this proceeding. Rendering a simple fracture compound is now the lesser of the two evils presented. Compound fractures under present managemen tare very much more innocent of harm than is a ruptured artery treated under the old rules and methods.

I might cite several cases which have come under my personal observation: I once saw a policeman who was shot and the femoral artery severed about the same point as this. The artery was ligated at the site of election above; gangrene supervened and the patient died on the fouth day. I also saw a patient whose axillary artery and vein were both perforated by a bullet: and an aneurism developed, when I saw the patient some days afterwards, I ligated the subclavian artery: a secondary hemorrhage occurred several days later I think it was the second or third day after the ligatur was placed in position that the patient suddenly suffered a severe sense of oppression with hemorrhage. Another hemorrhage occurred later associated with severe oppression of the chest, and the patient died. Making a post-mortem, we found that the vein and artery were both perforatep and ligature placed on the astery was inproper position, and the secondary hemorrhage occurred from the axillary vein and not from the artery. The death of the patient was probably from insufflation of air, for the left auricle and a portion of the vena cava were filled with grumous blood—air mixed with the blood: and there was quite an extensive coagulem extending through the heart.

[TO BE CONTINUED.]

APPARATUS FOR THE SICK-ROOM.—Mrs. E. P. Bailey has invented a contrivance for the convenience and comfort of the sick which is very highly spoken of in the hospitals where it has been tried. Two iron sockets are firmly attached to the sides of the bedstead by screws, and into these are fitted short poles, and between the poles is suspended a horizontal bar also fitted into clamps and adjustable to any height above the patient lying on the bed. From this bar hang a pair of strong strpas with grips, and these can be moved from right to lift at will. By grasping these straps the sick man can utilize the strength of his arms to left himself up, to change his position, to turn over and to allow the bedding to be changed. There are a variety of attachments to the invention which extend its usefulness almost indefinitely. One is a rest for the leg, in which a broken limb can be placed while it is being dressed. It is only necessary to unscrew the sockets attached to utilize this. Another is a small table for medicine, a book, anything a patient wants, within immediate reach. Another is a curtain rod, likely to be especially serviceable in hospital wards to avoid a draught, to shut out the light or to afford a degree of privacy.—*Syracuse Herald.*

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THE WEEKLY MEDICAL REVIEW.

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ORIGINAL ARTICLES.

PEROXIDE OF HYDROGEN AS A REMEDIAL AGENT.

BY DR. I. N. LOVE.
Consulting Physician City Hospital.

Read before the St. Louis Medical Society, Feb. 4, 1888.

I am aware that there is a disposition upon the part of some workers in the profession to decry the merits of those whose efforts tend in the direction of therapeutic investigation and the application of remedies to the relief of disease, the rather appreciating pathological research and the study of the phenomena of disease.

Fully recognizing the importance of closely and carefully scrutinizing the anatomical, physiological and pathological panorama which may be presented to our view, I cannot refrain from suggesting that after all the main object to be attained is the relief of suffering and the prolongation and saving of human life.

The most profound pathologist would be powerless for good did he not have as an ally the delver among drugs searching for the means of mastering the microbes which he has discovered; and the studious, thoughtful practical physician, accomplishes the greatest amount of good and secures the most substantial success who promptly applies the knowledge gained by the both workers; and all are co-laborers aiding the securement of that grand millenium when man will pass from the cradle to his second infancy without the shadow of suffering or a thought of disease.

Huxley has said that an exhaustive study of drugs on the part of physicians was not necessary to their proper application to the cure of disease any more than a complete knowledge of the manufacture of surgical instruments was necessary to their sucessful use by the surgeon: however, a practical familiarity with the make up and mode of action of these medical and surgical tools is essential to their graceful and efficient use.

The medicament to which I propose to direct your attention in this short paper is the "Peroxide of Hydrogen" the formula of which is H_2O_2 and which was discovered in 1818 by Thenard by adding dilute acids to peroxide of barium.

Meissner in 1863 proved its presence in the rainwater collected during thunder storms, and this has been corroborated by Schönbein, Struve and others.

The usual preparation of a solution of peroxide of hydrogen depends upon the decomposition of barium peroxide by hydrochloric acid (carbonic or hydrofluoric acid may be used) in the presence of ice cold water, and the precipitation of the newly formed barium chloride by means of sulphate of silver. Such solutions usually contain about 3 to 5 per cent of the peroxide,and are concentrated by freezing, the last portions of water being evaporated *in vacuo* over sulphuric acid at a temperature not exceeding 68° Fahrenheit. In this form it is a colorless, transparent syrupy liquid with a specific gravity of 1.452, does not congeal at 22° below zero (F) volatilizing slowly and without decomposition at the ordinary temperature.

It is decomposed when exposed to the sunlight, or when heated or brought into contact with charcoal, silver, gold, the platinum metals, the oxides of manganese, alkalies or many other compounds.

In this concentrated form the peroxide, if

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brought under conditions favorable may decompose with explosive violence, and in the presence of the oxides of the metals mentioned they are reduced to the metallic state. Many other bodies act less energetically or are oxidized.

Litmus and turmeric paper are gradually bleached, and the skin may be turned white by its application, accompanied by itching. In the strength to which I am now referring it is without odor and has a harsh and bitter taste, soluble in water in all proportions, which solutions are decomposed by the same agents as the pure compounds but less violently. They are made more permanent by adding a small amount of mineral acid.

The commercial peroxide of hydrogen is a 3 per cent aqueous solution, and is prepared on a large scale for the bleaching of animal products such as feathers, hair, silk, bone.

It is known as ten volume peroxide of hydrogen, owing to the fact that it yields about ten volumes of active oxygen, which may be estimated by adding a sufficient amount of sulphuric acid, and afterward a standardized solution of potassium permanganate as long as the latter is decolorized.

From its very nature this agent should be a powerful antiseptic and a destroyer of microbes. Anything which accomplishes oxidation so rapidly, if it can be applied safely, must be an excellent application to purulent surfaces.

It has been administered internally for diabetes but without success. Its recommendation for some forms of atonic dyspepsia would seem to be reasonable since we know that condition to be frequently due to a catarrh of the gastric mucous surface accompanied by excessive mucous secretion and fermentation.

I find there is considerable variation in the effectiveness of solutions coming from different drug stores; this may be due to a failure to protect it from the sunlight. It should be kept in opaque bottles at a temperature not above 70°.

I have secured uniform satisfaction from the solution manufactured by the G. Malinckrodt Chemical Co., of St. Louis.

The clinical application of a remedy is the best test of its value.

As a contribution to the fund of knowledge upon this subject I herewith present the following cases:

Scarlet Fever and Diphtheria.

R. H., æt. 4 years, an unusually intelligent and interesting boy, developed scarlet fever December 22, 1887. A pronounced case, temperature vibrating for several days from 102° to 104°, throat quite sore, some disposition to ulceration upon both tonsils. Within a week symptoms much modified, temperature ranging in the neighborhood of 100°, where it remained four days, child being quite playful but not permitted to get out of bed. At this time diphtheria became a complication involving the pharynx and the nasal passages. The secretions from all the mucous surfaces were very profuse and purulent in character, suffocation at times seemed imminent from their accummulation and the odor was extremely offensive to the patient as well as the attendants. A well organized fibrinous exudation appeared over the surface of the tonsils well forward to the palate, and upward into the posterior nares. The sub-maxillary and sub-lingual glands were much enlarged and engorged.

Wherever a mucous surface was visible, if not covered with diphtheria membrane it was violently inflamed nearly to the point of ulceration and exuding a purulent and almost disgusting discharge. Temperature ranged in the neighborhood of 104° and 105°. An almost constant paroxysmal cough was present, due to the general irritation and accumulated secretions, and at times a marked spasmodic asthma was present owing to reflex irritation dependent upon the inflammation of the posterior nares.

The general conditions were alarming, the child being in almost a state of frenzy owing to his many discomforts. I shall not give in detail the notes of the case, as I only cite it as an illustration of the value of a particular remedy to relieve a particular series of symp-

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toms. Having been using the peroxide of hydrogen in various strengths for some months as a purifying and stimulating wash for purulent ulcers, sinuses and fistulas, as well as diphtheria, I concluded to use it as an application in this case.

Diluting it one part to two of water for application to the nasal passages by means of a syringe and using it in its purity by means of probang and absorbent cotton to the pharynx I soon had the satisfaction of seeing the pus and accumulated mucus cleaned off from all the surfaces as if by magic. The child was a bright little hero, and though semi-dleirious he helped materially in its application and also in the removal of the oxidized purulent matter. The nasal passages front and back were soon cleared out, and the fauces as well were kept in a comparatively cleansed condition. A good opportunity was now presented for applying the solution in its purity to the membrane direct and the disintegration of the same was accomplished after repeated applications in a very decided manner. Wherever the solution came in contact with organic matter a marked effervescence and bubbling ensued and a breaking down of the accumulation or exudation and throwing off of the same occurred.

The beneficial effect of the application was apparent: all the distressing symptoms were much abated, and within three or four days they had passed away.

One thing quite noticeable was the fact that the constant spasmodic cough subsided after the removal of the purulent secretions from the nasal passages. The success in this case was similar to that in six other cases and I quote this one as illustratiug the class, not desiring to indulge in repetition by reporting them all. This child was in a most dangerous condition for many days and nights, and I do not claim that the peroxide of hydrogen saved him, but it certainly helped to do it in that it enabled me to combat the local poison, acting as an antiseptic, a germicide of the most pronounced character, a remover of purulent septic matter and offensive odors aiding in the conservation of comfort to patient and attendants.

Constitutional measures were of course never lost sight of, constant attention being directed to excretion, sedation, stimulation and nutrition. Other local measures were of course used, the peroxide serving as a means of "clearing the track" for the application of soothing and healing ointments to the nasal passages spraying of all surfaces with listerine and other remedies as indicated.

En passant at this point permit me to remark that I have no patience with the practitioner who permits himself to be overcome by a physical, mental and scientific inertia, so that he can sit idly by and trust entirely to the *vis medicatrix naturæ*. If one's house is on fire and he trusts to nature instead of turning on the hose, the chances are that he will sleep on the commons unless a friend takes him in.

The "therapeutic nihilist" had better change his calling. The practitioner with no faith in physic, who like Solomon cries out, "all is vanity," gives evidence that he has mistaken his vocation or like Solomon indicates that it is time for him to abdicate. What would one think of a soldier who was ever decrying the merits of his cause and gun? Either that he had a poor cause and an inefficient gun or didn't understand the one and didn't know how to use the other.

In the management of no disease in my judgment is it so necessary for the attendant to be ever on the alert as in diphtheria. He should sleep on his arms,so to speak,with one eye open, anticipate his enemy rather than run the risk of a surprise; well supplied with ammunition ready to use it, "not too much but just enough" and possess an abiding faith in its efficacy.

In wrestling with disease let us pursue the course with remedial agents that we do with friends study them,try them,weigh them in the balance thoroughly, and if not found wanting adopt them and trust them.

Then let us stick to them as long as they prove faithful. If they fail us and a better one is presented, accept it if it stand the test and prove worthy. In short let us not drop an old for a new unless the friend prove false

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and the second give evidence of virtue most true.

As an adjuvant in arresting the destructive tendency of diphtheria I am persuaded that the peroxide of hydrogen will stand the test of time.

PURULENT OZENA AND CHRONIC NASAL CATARRH.

I have applied the peroxide of hydrogen in strengths varying from one part to three or six of water in four cases of the above character during the past month. Very favorable reports have been given me enough so to justify me in considering it of great value in this trouble. A sufficient time has not elapsed to enable me to determine whether it will secure a permanent cure.

The application was made three times daily.

ACUTE CORYZA.

The peroxide in the proportion of one to four of water is applied freely by means of a syringe through the nostrils, a hard rubber syringe gently throwing about two tablespoonfuls into each nostril while the head is thrown backward. It passes back through the posterior nares carrying the completely oxidized mucous secretion with it. It is then applied to the fauces in same manner. A free sneezing and perfect discharge follows. The application made about once in four hours in the beginning and less frequently later. Three such cases were greatly relieved after first application and cured inside of a day or two.

It is well known that influenza in some cases at least is dependent upon some irritating germ, and possibly the agent used above killed the microbe.

WHOOPING COUGH.

In two cases where the paroxysms were frequent and violent, I have had great satisfaction in seeing the frequency and severity much modified by the use of the peroxide (1 to 4) twice daily, and the attack was unquestionably cut short.

REFLEX ASTHMA.

Two cases of reflex asthma intercurrent during an attack of diphtheria, and a general catarrhal fever, dependent upon the irritation in the post nasal space were promptly relieved after a few applications of the peroxide (1 to 4).

FOLLICULAR TONSILLITIS.

Very satisfactory results were obtained by using the remedy as a gargle (1 to 6) every two or three hours. Listerine, calendula, tincture of iron and other soothing, stimulating and astringent remedies were used by the atomizer between the intervals.

HAY FEVER.

I have not used the remedy in this trouble but would suggest from the manner of its action that it is worthy of trial.

CANCER OF THE WOMB.

In this affection I have had satisfaction in using the peroxide in its purity as a cleanser, deodorizer and stimulator of healing in that portion of the ulceration probably dependent upon the irritating effect of accumulated purulent matter.

The gratification and comfort to patient and attendants secured by the application well repaid its use. One who has never observed the horrible stench in the room of a neglected cancer of the womb can have no conceptiou of the value of the drug in this connection.

Dr. Joseph Grindon, a dermatologist of St. Louis, informs me he has used the agent to remove pigment spots from the skin.

This is the main remedy furnished by dealers to weak minded women for blonding the hair.

It is needless for me to continue to cite cases and conditions where the peroxide of hydrogen will prove of value.

I think it worthy of trial in gonorrhea.

After a six months' trial of the peroxide of hydrogen, considering the nuture of the agent and its effect upon purulent matter and bacteria I feel justified in stating.

1. The peroxide of hydrogen is a most efficient means of cleansing purulent surfaces, deep cavities and sinuses and stimulating the healing process in ulcerating parts.

2. As a destroyer of microbes it is of

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great value as a local application in diphtheria and scarlet fever, ozena, coryza and whooping cough.

3. For the above reasons it should prove of value in gonorrhea, hay fever and similar disturbances probably dependent upon a specific germ.

PUERPERAL TETANUS.

BY ARCH. DIXON.

On the night of Oct. 18, 1887, I was called to see Mrs. H., a large, stout, healthy woman, æt. 32, had been married about eighteen months—primipara. She informed me that she had had a discharge of water from her womb, and that since that pains in her abdomen had been coming on at regular intervals. Examination revealed the fact that she was in labor; it also revealed the fact that the pelvis was rather narrow and somewhat contracted, especially in the transverse diameter; the os was slightly dilated and the position O.P. Her husband was informed that the labor would, in all probability, be a long, tedious and perhaps hard one. Pains came on regularly, but the os dilated slowly; by 9 o'clock the morning of the 19th dilatation had fully taken place, and the expulsive pains, notwithstanding a liberal supply of chloroform, were very severe. Matters went on thus for an hour longer without perceptible progress toward delivery. Forceps were applied and a large male child delivered. The placenta was expressed after the method of Credé, the uterus contracting well; no hemorrhage; the vagina was irrigated with a 1 in 5000 bichloride solution, and a napkin wrung out of the same applied to the vulva.

During my visit after supper the bladder was emptied by catheter, the patient being unable to pass her water: otherwise she seemed to be perfectly comfortable. After giving the usual instructions to the nurse in regard to cleanliness, etc., I took my leave and saw the patient no more until Nov. 2, when I was sent for to prescribe for a sore throat. Mrs. H. informed me that she had been doing remarkably well since her delivery, had had no fever, appetite good, and that she had been sitting up since the ninth day. This was confirmed by the nurse, who said that every thing had gone on nicely, lochia all right, but that the night before my visit the patient had, contrary to her advice, taken a bath down to her waist, wetting her hair, of which she had a remarkably thick suit, and that from this she had perhaps taken cold, and now had a sore throat so severe that it was with difficulty she could swallow anything. Examination revealed only a slight redness about the fauces, but I noticed that there was some difficulty in opening the mouth, the jaws appeared stiff, and there was a disposition to yawn, accompanied by pain in the neck, accentuated along the course of the trapezius muscles. Tetanus was not, however, suspected. After some simple prescription I took my leave, with instructions to be advised next morning if the patient was not better. The morning of Nov. 3, I was again called; the throat was no better, the stiffness in the jaws and the pain in the neck had increased in a marked degree. It was impossible to open the mouth save to a very limited extent. In attempting to get a view of the throat there was a spasmodic closure of the jaws, accompanied by distinct convulsive movement of the muscles of the neck. I learned that this spasmodic closure of the jaws had taken place a number of times during the night at longer or shorter intervals, the spasm coming on every time the patient was startled by any noise, even the ordinary noise produced by the closure of a door causing it. The diagnosis of tetanus was made at once, and a grave prognosis given. Examination revealed no appreciable lesion of the vagina or uterus. The lochial discharge had been sufficient in quantity and without odor. Temperature had been normal, appetite good. Notwithstanding this the uterus was irrigated with bichloride solution, 1 in 5000. Chloral and stimulants were given in large and increasing doses and mainly depended upon; but in spite of all my patient grew daily and hourly

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worse, and died on the morning of Nov. 11, ten days from the inception of the disease. During the whole of this time her mind was perfectly clear, and the temperature never reached above 101° F.

Puerperal tetanus is a disease of so rare occurrence that in searching for literature on the subject, no mention of it could be found in any obstetrical or gynecological work within my reach, save in that of Sir James Y. Simpson. Playfair, Lusk, Bennett, Meigs, Churchill, Thomas, Emmett, Barnes, Byford, Cazeaux and Tarnier are each and all singularly silent on the subject. In Pepper's System of Medicine perhaps as much as half a page is devoted to it. Mention is made of its rarity; and grief, anxiety, overwork and profuse hemorrhage are said to predispose to it, as do also obstetrical operations and retention of pieces of the placenta. Reference is made to Garrigues and also to Macdonald, the latter believing the essential lesions of the disease to be due to venous thrombosis. Simpson says, Obstetrical Works, vol.II., that internal lesions of the uterus, both in the unimpregnated and puerperal states are without doubt, sometimes followed by tetanus in an acute and fatal form. This fearful complication is fortunately a rare occurrence in midwifery practice. * * * In none of our modern obstetrical books, nor in any of the various essays or works devoted to the consideration of abortion or puerperal diseases is any allusion made, so far as I know, to the possible supervention of tetanus after miscarriages. It is a complication, however, which does occasionally take place, and it is always one very formidable in character, and generally very fatal in its issue. * * * Puerperal tetanus when following parturition at or near the full time of pregnancy, seems to be guided, in regard to the period of its supervention, by the same laws as regulate the occurrence of the disease after abortion or after surgical operations and injuries. Under all these conditions the tetanus attack usually does not commence till about a week after the occurrence of the exciting obstetrical or surgical lesion." In the case under consideration the attack did not occur until fourteen days after the delivery by forceps.

The etiology of tetanus is still *sub judice*. Whether it is essentially a disease of the blood or of the nervous system, whether it is infectious or not, are questions which have long agitated the medical mind. External injuries and lesions certainly form the most common source of tetanus, but surgical pathology has not as yet demonstrated any settled connection in regard to the existing state of the wound and the occurrence of tetanus, quite as many cases arising when the wound is in a healthy condition, to all appearances, as are observed to arise from wounds that are unhealthy, inflamed and sloughing. Next in frequency, as an exciting cause of the disease, as laid down by authors is exposure to cold, to currents of cold or damp air; this is especially the case if there be an existing lesion, but cases of tetanus have been known to arise from exposure to cold, when there was no appreciable lesion external or internal. Very many cases of tetanus in surgical practice have been observed to occur immediately after the patient had been exposed to a draft of cold air or to a sudden change of temperature. This fact seems to hold good in regard to cases of puerperal tetanus, at least in the case under consideration this was the fact. The patient had been doing perfectly well until she took the bath, wetting her hair, and perhaps encountering a different temperature in the bath-room from that in her bed-room. For a number of years I have been of the opinion that tetanus was due to toxaemia, perhaps septic in character, but if this theory be true, why should so small a matter as a current of cold air develop this disease in a puerperal woman who had for fourteen days after delivery shown no symptom of septic trouble? Usually even in cases of abortion where it is often difficult to remove entirely the secundines the patient experiences no trouble during the succeeding six or eight days, one feels comparatively sure that there will be no septicemia. And yet, here is a woman with whom every antiseptic precaution had been taken

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who, notwithstanding a delivery by forceps, has a good getting up, and suddenly two weeks after delivery, is attacked with lock-jaw. Could septic trouble have developed at that late day? Or could sepsis have been latent in the blood, and the exposure to the cold air of the bath room have suddenly lighted it up? If so, it certainly was a most unusual occurrence. We all know that the disease is characterized by an exalted and hyperexcited condition of the reflex spinal system, but as to what is the cause of this hyperexcitation we are still in the dark. The theory of a primary poisoned state of the blood, followed secondarily by a tetanic condition, has been and still is, to my mind the nearest solution of the difficulty, notwithstanding the arguments against it, and I believe that hygenic and antiseptic measures, strictly observed, will go far towards lessening the frequency of this fatal disease. The supposition lately advanced by Prof. Verneuil, of France, that, *tetanus in man is derived from the lower animals*, presupposes its infectiousness and while it has some points in its favor, is, I think, untenable.

VELAMENTOUS PLACENTA.

Presented by Dr. Walter Coles, before the St. Louis Medical Society, Feb. 4, 1888.

I have here a pretty specimen of velamentous placenta, in which the cord instead of being normally implanted in the placenta, is connected with the amniotic sac; in the walls of which the umbilical blood vessels separate from each other, and branch off in different directions to reach the edge of the placental mass at different points around its circumference.

This rare specimen presents little of clinical importance, except that we can readily see how in rupturing the sac it might be possible to open a vessel of considerable importance, thus giving rise to a degree of hemorrhage which might jeopardize the life of the child. Then again, the fetus might be injured in a violent and prolonged labor, after rupture of the amnion, by pressure upon the exposed vessels which are grasped between the uterine wall and the body of the child.

The chief point about this specimen is its physiological interest, inasmuch as it carries us back to the early development of the embryo,—a subject which is still in an unsettled state, especially in connection with the human embryo.

What are the physiological factors which have contributed to the abnormality in this placenta? If the usually accepted views of the origin and function of the allantois be correct, there would seem to be no question but that this peculiar distribution of the umbilical vessels is due to the fact that the allantois has come in contact with, and attached itself to the chorionic sac at some point remote from the placental site. This is the view of Cazeaux and most modern obstetricians, and yet it must be confessed that our knowledge of the earlier stages of ovology in the human subject is imperfect and somewhat limited; our observations on this subject being for the most part confined to the lower animals, or to human ova that have been aborted, in which case we are not sure that strictly normal physiological conditions exist. According to the hitherto accepted view, the ovule is impregnated in the fallopian tube and on entering the uterine cavity is embedded in the turgid folds of its mucous lining, where the chorionic villi rapidly take root. The ovum grows rapidly, and by the fourteenth day is enveloped on its free surface by the decidua reflexa, into which the villi of the chorion extend, and thus establish vascular communication with the uterus throughout its entire extent. About the twentieth day the allantois protrudes from the caudal extremity of the ventral cavity of the embryo, and rapidly extends outward until it comes in contact with the chorion, when the umbilical arteries and veins, thus conducted from the embryo, soon spreads over its inner surface and dip down into each cotyledon.

The vascular connection between the embryo and mother is thus established and kept up with slight modification until the end of

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the second month, when the decidua reflexa, and the villi connected with it, begin rapidly to atrophy in consequence of the development of the placenta, within which the fetal circulation is henceforth confined, and toward which the main vessels of the cord directly tend.

The explanation of Cazeaux of the origin of the anomaly presented in this specimen, *i. e.* that the allantois "happens" to come into contact with the chorion at some point removed from the site of the future placenta, does not seem perfectly satisfactory; for if the direction and point of first contact of the allantois be a matter of accident, it is strange that this condition of things does not more frequently occur—unless we can prove that there is some occult influence which directs the allantois to that portion of the chorion in direct contact with the uterus.

In the case of many of the lower animals, where the placenta is membranous in character and co-extensive with the uterine wall, the point of contact with the chorion would make no difference, but in the human ovum the conditions are not similar, and hence we should seek elsewhere for explanation.

It is probable that the condition and distribution of the blood vessels here presented, may have been brought about by the peculiar manner in which the amnion originally closed in upon the umbilical cord, during which process the umbilical vessels were pushed off to one side, and thus forced against the wall of the sac.

As before stated, our chief knowledge of the early development of the embryo has been derived from the study of rabbits, in which animal the allantois is clearly the primary conductor of the blood vessels from the fetus to the chorion. But if we are to believe the assertions of Reichert, His and others, the connection between the embryo and the chorion in the human subject is quite different. Reichert and His have observed human ova at an earlier stage than any known to history, and their observations go to show that there is a primary connection between the human embryo and the chorion. That is to say that the area germinativa is formed on that side of the cavity of the ovum which is adherent to the uterine wall, and that there is, from the beginning, what His calls a "stalk" or connection between the chorion and the embryo through which blood vessels find their way to the fetus at the umbilicus. In other words, in the human embryo there is an allantoidean stalk or connection between the embryo and the chorion, which is primary and permanent whereas in the rabbit the allantois starts from the embryo and reaches out somewhat blindly for the wall of the ovum.

If this be so, we can understand how unerringly certain the cord is in finding a central implanation in the placenta, for in the human subject it springs from and is originally attached to the chorion at a point which corresponds with the future site of the placenta. Sometimes, as in a human embryo described by Krause, the development of the allantois seems to revert back to a lower type, as has already been mentioned as characteristic of the rabbit, and in which there is no primary connection by means of the allantoic stalk with the chorion.

It is probable that in such erratic cases as these, we might expect to find more or less of the battledore, or still greater exaggeration of the velamentous placenta.

PEROXIDE OF HYDROGEN.

Remarks by Dr. Pollak at a meeting of the St. Louis Medical Society, on Dr. Love's paper.

I have used the peroxide of hydrogen since 1882, I believe. I consider it one of the most valuable therapeutic agents of modern times. It has a high oxidizing power, and when injected into a septic cavity or sinus, it is decomposed, the extra atom of oxygen attacking the septic material, disinfecting it; ozone being evolved which foams out in large quantities. The residual is a clear inodorous fluid.

I use it for its cleansing, deodorizing, germicidal and disinfecting properties. It has neither an anesthetic nor stimulating effect but it may be an irritant on denuded surfaces

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I use the commercial peroxide of hydrogen undiluted; it is probably not very pure.

In aural practice, it is to me indispensable, and has displaced all other appliances for cleansing, and deodorizing the ear. In otorrhea or otitis media purulenta, with a small perforation in the membrana tympani, effective cleansing of the tympanic cavity is very difficult, painful, and with nervous patients and timid children, almost impossible. The difficulty is obviated by the instillation of 10 to 15 drops of peroxide of hydrogen; instantly the meatus auditorius will fill up with a foam overflowing; this foaming and bubbling will continue until every trace of pus is decomposed and eliminated from the drum cavity or the mastoid cells.

The ear is left absolutely clean and odorless, as it never could have been made before, and with only very little trouble to patients and physicians. Insufflation of dry boracic acid completes the treatment for the day in three minutes.

I have used it with entire success in purulent ophthalmia, both in adults and children. When the lids were edematous, hard, difficult to open, with largely chemosed conjunctiva and profuse purulent secretion, and effective cleansing was laborious and painful, I have succeeded admirably with the instillation of the peroxide of hydrogen, and subsequent ice and hot water applications. I needed no syringe, sponges, brushes or elevator. The acrid purulent secretion having been removed, the treatment was largely simplified.

A like cleansing and disinfecting treatment I pursued in cases of sloughing of the cornea, the result of traumatism. The application caused neither pain nor irritation.

In a case of keratitis hypopion traumatica, where the pus filled nearly the entire anterior chamber, with severe circumorbital pain and large chemosis, I paracentized the cornea in the lowest part, evacuated a large portion of the pus, but not all. I ventured to drop two drops of the peroxide upon the incision; a little must have passed through it, for almost immediately a few bubbles foamed out, and the anterior chamber was clear; frequent bathing the eye with $^1/_{2000}$ solution of bichloride of mercury, resulted favorably in a very few days.

In dacryocystitis with stenosis of the lachrymal duct with profuse epiphora, which formerly almost always eventuated in a lachrymal fistula, but thanks to Bowman's method is now rarely seen, the peroxide is of incalcualble value. After dividing the lower canaliculus, two or three drops of the peroxide is injected into the opening of the lachrymal duct—which is soon followed by the foam coming out through the nostril, as well as from above. This indicates a pervious duct, which improves without much probing and dilating. In a case of a suppurating inflammation of the antrum of Highmore, causing great pain and fetid rhinal discharge, the second molar had been extracted, in hope that an opening might be found into the antrum. The opening however had at last to be drilled with the dental engine, until the pus cavity was reached. The peroxide was sent up after it, twice daily, with the result of completely cleansing and deodorizing the cavity, and giving entire relief from pain. The patient continues the treatment yet.

In a case of incurable ozena with atrophy of Schneiderian membrane, loss of lower turbinated bone, with very fetid incrustation in the upper rhinal space, a liberal daily injection of the peroxide detaches the crusts, and deodorizes the nose completely.

I always carry a small vial of peroxide and of cocaine in my pocket; it is on my desk in the hospital and office; we are inseparable companions. I am persuaded that it will soon become as popular with the profession as chloral, chloroform, opium or cocaine. Though I had read about it in several German publications, years ago, it is due to the late Dr. Byrd, of Quincy, Ill., who persuaded me to give it a fair trial. I shall always be grateful to his memory for it.

THE FRENCH FUND FOR PROMOTING THE CURE OF CONSUMPTION.—According to the "Gazette hebdomadaire de medicine et de chirurgie," the total amount thus far subscribid to the fund for encouraging the study of the cure of tuberculosis is 58,394fr. 10.—*N. Y. Med. Jour.*

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SATURDAY, FEBRUARY 25, 1888.

PRESCRIPTION OF PROPRIETARY REMEDIES AND SUBSTITUTION BY DRUGGISTS.

The medical profession is under obligation to established pharmaceutical houses for many valuable, elegant, and convenient preparations, and the present advanced position of pharmacy is largely dependent upon the tendency of different firms to concentrate their skill in the direction of special remedies. As specialism in the medical profession is an accomplished fact, so it is in pharmacy, and for the same reasons, and in both cases it has come to stay.

Any sentiment which is opposed to the specification upon the part of a physician of a given brand of a drug, or a combination of drugs smacks of dilettanteism.

Opposition to the prescription of a chemical combination which demands as part of the essentials of its perfect preparation well selected, reliable, fresh materials, and the elements of time, based only upon the fact that it may be classed under the head of proprietary remedies (even though the component parts be given) borders upon "Miss-Nancy-ism".

In all conscience the profession is burdened already with enough rules and regulations that are not obeyed, and it is to be hoped that there will be no further effort in that direction.

Common sense, the best interest of physician and patient not to speak of convenience fully justify the physician in prescribing Bromidia, Lithiated Hydrangea or Listerine, Elix Dioscorea Compositum, Gregory's Syrup Doveri, Peptic Ferments, Squibbs' Extracts Wyeth's, Warner's, Upjohn's Pills, specialties of Park Davis & Co., or the Oldberg Wall Co.

The justification of specification in the formularies of the physician, seems almost superfluous, but what is to be said of the druggist who in carrying out the written advice of the medical attendant has the audacity to substitute something which his venality, vanity or convenience would suggest? Only this and nothing more.—If he in place of Bromidia, Listerine or O-W. L. compound gives another, if he interpret the written instruction of the doctor other than literally except there be a doubt based upon a *lapsus penna* or a defacement (and then only after communicating with the writer, or in case this is impossible giving a subsequent explanation) he should not be trusted, for if he be false in one direction he will be false in all.

The physician has a much stronger right to his preference for a given brand of ergot chloroform, chlorodyne, Bromidia, Lithiated Hydrangea, or pepsine, on account of interests involved, than the epicure has for his favorite wine or viand, or the housewife for her particular family flour; and the caterer who would deceive the latter would be promptly blacklisted, and the same fate should even more promptly and severely befall the unfaithful dealer in drugs for reasons which are apparent.

Honesty considered only from the sordid standpoint of policy is better than dishonesty.

Some writer has observed that the woman who hesitates is lost, and as truly may it be said that the druggist who *substitutes* is lost.

I. N. LOVE.

PEBBLES VERSUS GLASS.

It is very common for opticians to induce their customers to buy pebbles for eyeglasses. If we leave aside as too sordid, the possible motive of the higher price and consequently the greater gain, especially when what is no

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pebble is sold for one, what position are we
physicians to take with regard to this ques-
ion? The usual reasons given by the opti-
an in recommending the pebbles are first,
at they are much harder than glass, and
erefore do not become scratched so easily,
cond, that they "cool the eyes." Not all
tients accept these statements as true, nor
all willing to pay the higher price with-
coming to us for counsel. Our answer, I
k should be governed by the following
siderations.

Pebbles are undoubtedly harder than glass
therefore do not break or become rough
sily as glass does. They are to the touch
what cooler than some glass, and by
al test it has been found that there is a
erence of about 1° F. between a pebble
a flint-glass in favor of the former. Yet,
wn-glass is about one degree cooler than
pebble. Pebbles, however, have a double
action, glass has not, and, although the index
dispersion is smaller for the pebble than
either flint- or crown-glass, this double-
action is of a necessity a serious objection
the use of pebble-lenses of considerable
ckness.

From the foregoing the hardness of the
ble-lenses and their low index of disper-
are the only points worth considering
ecommending them. Their cooling in-
nce (if there is any) holds good only when
pared with flint-glass. Their double re-
ction makes thick glasses decidedly ob-
tionable. Their dazzling brilliancy rend-
their use disagreeable and perhaps dan-
ous for eyes which are very sensitive to
ht.

If, therefore, a patient who needs a weak
s and whose eyes are not sensitive to
ht, is willing to pay the higher price for
bles, well and good. In such a case, we
from a physician's standpoint, I think,
ve no objection to them. In all other
es it seems to me we should dissuade the
ient from the use of pebbles. ALT.

CLIPPINGS.

In the good old college days each student was supposed to keep an "Index Rerum." How carefully we searched for items, and how accurately reference to each point of value was noted. Some trouble was part of the price paid, and time was needed to make deduction or abstract, but time and trouble were our capital and lavishly spent.

That was years ago. The mile stones of passing years come and go more rapidly now. The days are all too short for the routine of work, and the "Index" for each year grew thinner and thinner, till at last it literally "went to the wall," crowded out by the book-case, the ledger and the letter file.

While it is true that few physicians can keep an "index," much of what is valuable in current literature can still be saved. All physicians take one medical journal; most of them take more than one. An old file of journals is practically valueless, and it is a task of no mean proportion to attempt to find some special article in a pile of dust-covered periodicals indiscriminately thrown together.

A plan which is of value, requires little time and is withal inexpensive, is to procure a large envelope with numerous indexed pockets. This can be procured of any wholesale stationer. Once a month let a few minutes be given to clipping from the journals such articles as may be of value and placing them in a pocket under the letter suggested by the subject.

When the physician needs to review a certain subject or recall the position of some writer, he has the year's current literature on that subject before him, or so much of it as has been contained in the journals he takes.

If the mention of this does not contain much of science the practice of it will at least enable a man to keep his science at his finger ends.

I am free to say that I consider my receptacles for journal clippings more valuable than any shelf in my library.

WILLIAM PORTER.

SEQUELÆ OF DISEASE.

However much we may hope for in the fur-

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ther investigation of the germ theory, at present our definition of the various names applied to diseases, are merely the enumerating of groups of symptoms. When a new group supervenes on any of the specific fevers, we call the second group a sequela of the first. In some instances the two are so closely connected that we recognize them at once as cause and effect. But we cannot tell how or why the cause produces the effect, so limited is our knowledge of the etiology of disease.

In acute articular rheumatism, we watch the heart sounds for evidences of endo-carditis, but we do not know why it should follow. We recognize irritation as the exciting cause of inflammation, and we conclude that the acid in the blood in rheumatism is the irritant that produces the inflammation of the lining membrane of the heart.

In scarlet fever we test the urine for albumen, but we cannot tell why nephritis is more likely to follow this disease than it is to follow measles. True we have explanations offered, but they are based on analogical reasoning rather than on actual facts. We suppose the scarlatinal poison as it is being eliminated by the kidneys, is the exciting cause of the nephritis, but we are brought to a halt in our deductions on finding that the gravity of a disease has with regard to severity, no correspondence with the sequelæ.

Perhaps the most remarkable example of this is diphtheritic paralysis, which may follow any form of the disease but oftener the milder than the severer, and generally appears during convalescence, or after the patient has apparently recovered.

An interesting feature of this sequela is that in some cases pathological changes take place in the nerve structures, such as granular degeneration of the white substance of Schwann, and disappearance of many of the axis cylinders. This is certainly the result of destruction of the vitality of the nerve tissues, by the diphtheritic poison in the blood. That its effects are local is probably due to the fact that some portions of the nervous system have less power of resistance than others.

We know that some organs of our bodies are relatively weaker than others. "Catching cold", for instance, gives one patient a severe headache, another diarrhea, another bronchitis and so on.

The extent of the paralysis following diphtheria varies greatly. Dr. Alt, in a recent issue of the REVIEW called attention to a form that is frequently overlooked, in which paralysis of accommodation is the only symptom.

Dr. J. S. Bristowe, of England, in an article on "Diphtheritic and Related forms of Paralysis." (*Brit. Med. Jour.* Feb. 4 1888,) gave the details of five very interesting cases which had come under his care, of which the following is his summary:

The foregoing cases are all of them typical, and afford between them excellent illustrations of most of the more interesting incidents of diphtheritic paralysis. They show how the affection comes on some little time, usually a few weeks after the acute illness has subsided; how the paralysis (which involves sensory and motor nerves alike) tends to be of symmetrical distribution, to creep from part to part, and to subside in one region as it invades another; how the sensory disturbances are not limited to the extremities, but are apt to involve districts situated in the middle line of the body, including the tongue and mouth, and senses of taste and smell; how, also, the paralysis is liable to affect not only arms, legs, respiratory muscles and muscles of the trunk, muscles of accommodation, and of swallowing, but also the vocal cords, and even single nerves; how the tendon reflexes in the legs are first exaggerated, then disappear, and the affected muscles acquire the characteristic reactions of degeneration; and how, finally, while many of the phenomena are such as would seem to be best explained on the assumption that they are due to spreading neuritis, others (such as the sensory affections along the middle line, the early undue briskness of the knee-jerk, and nystagmus) seem rather due to some spreading central lesion. I am inclined to believe that, in diphtheritic paralysis, a wave, so to

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speak, of slight inflammatory mischief, spreads not only through the medulla oblongata and cord, but along the nerve trunks also.

Continuing, Dr. Bristowe described minutely three cases of paralysis which greatly resembled that following diphtheria. The first was a healthy looking man, 39 years of age, who was drenched in rain repeatedly, and was in wet clothes nearly the whole of one day. On the morrow he went to his work, but complained of sore-throat, aching pain in his limbs, vomiting, diarrhea, and general sense of illness. These symptoms seem to have been the beginning of a severe attack of quinsy, which, first attacking one side and then the other, kept him continuously ill, but without any special change in his symptoms until June 13. On that day he first complained of tingling in the arms and legs, attended with some loss of power; and, in fact, in trying to walk his knees yielded under him, and he fell down. The muscular weakness increased upon him day by day, until, on the sixth day of his paralytic symptoms, he entered the hospital.

The throat affection rapidly disappeared. The muscles of the upper and lower extremities, but mainly those of the fore-arms, and legs, hands, and feet, wasted to an extraordinary degree, so that they consisted of little more than the bones with the skin stretched over them. He continued under treatment nine months, the muscles of the upper arm and thighs regained some bulk and strength, but absolutely no improvement occurred in the forearms, legs, hands, and feet. Dr. Bristowe reasoned in this case as follows:

I came to the conclusion from due inquiry that the patient's primary attack had been one of tonsillitis and not of diphtheria; the paralysis came on while the primary disease was still acute, instead of a few weeks afterwards; and the general symptoms and progress of the disease corresponded with what one generally observes in cases of that form of paralysis which his habits had fairly earned for him. I have never known of a case of diphtheritic paralysis in which (if the patient do not die of it) ultimate recovery was not attained.

In the remaining cases the points of differential diagnosis were not given.

CORRESPONDENCE.

NEW YORK LETTER.

NEW YORK, Feb. 15, 1888.

EDITOR REVIEW.—It has occurred to your correspondent that a brief description of the city vaccine-virus farm might not be without interest to the readers of the REVIEW.

For many years the headquarters of this branch of the Sanitary Department was just opposite the Health Board building down town, but now an old stable up town on the east side of the city does duty. Here the cattle are kept. It is necessary for the city to buy them outright, and after keeping them for a due time, they are sold at a slight loss. The expert in this department is Dr. Pardee. He usually has a dozen or more animals on hand. The only apparatus necessary is a platform on which animals are strapped while undergoing treatment, and a small grindstone on which to roughen the quills which are to receive the virus.

The animals are inoculated about the udders and after the local eruptive spots are fully developed, they are opened and each quill rolled once over the exuding discharge. These are dried and later cut crosswise in the middle and then slit lengthwise into two pieces, each quill making four "points". Of the latter about three thousand are provided every week.

Until very recently, calves were used but Dr. Pardee became convinced that better virus could be obtained from larger cattle and the change was made. The annual expense of the establishment is about two thousand dollars. About twenty-five hundred dollars are received each year from the sale of virus. On the receipt of ten cents the department will send a quill point securely wrapped in rubber tissue to any part of the United States. Communications may be addressed to No. 301 Mott St.

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Last year the inspectors vaccinated nearly one hundred thousand patients. The virus has been brought to a very high state of efficiency. One inspector recently vaccinated sixty-five children in a public institution, and it "took" in every case. In fact it is generally preferred to humanized virus.

During the past week our State Medical Society has met in Albany. The papers were of the usual high order. The President of the society, Dr A. L. Loomis, delivered an able address on some of the leading medical problems of the present day, viz: The relations of microbes to disease processes. Second. Inoculation as a means of modifying or preventing disease. Third. The causes of abnormal temperature in disease. Fourth. The effects of antipyretics in the treatment of disease. Among the most noteworthy of special papers was one by Dr. Delafield on "Acute Bright's Disease." He describes three different pathological conditions.

1. An exudative nephritis with congestion, diapedesis of red cells, emigration of leucocytes, an exudation of blood plasma and glomeruli changes.

2. A nephritis with parenchymatous changes inflammatory or degenerative in the renal epithelium.

3. A nephritis with diffuse changes, all the tissues of the kidney being involved. Here the most important features are the growth of connective tissue and the permanent character of the lesions.

Dr. Delafield believes that all cases of acute Bright's can be classified under one of the above headings.

Pregnant women give either exudative or diffuse nephritis. Diphtheria and scarlatina give also the diffuse form. These two latter with pneumonia and typhoid fever, give often mild exudative or of parenchymatous nephritis.

The Dubois Fund for sending trained nurses to the deserving sick poor, has become a very practical charity. The terms of payment are five dollars per week. Five hundred dollars will provide a nurse for this work for one year including all expenses, board, wages and car fare. Of course—at present the expenditures exceed the receipts for nurses services and the deficiency is made up by contributions from the well to do. The regular trained nurses are able to command from fifteen to twenty dollars per week.

Dr. MacDonald the director of the city asylums on the Islands has recommended that a crematory be built for the disposal of the bodies of the unclaimed dead. The Potter's Field is now receiving twelve bodies each day and the available burial space is now being greatly crowded and the erection of new buildings necessitates disinterments. It is estimated that ten thousand dollars will defray the expense.

The last census of the County Medical Society shows a membership of nine hundred and seventy-four. Barely two-thirds are "right" with the Treasurer, the remainder being more or less in arrears.

An interesting case of "pyromania" has developed in the person of a little girl aged 11, who was an inmate of the hospital for ruptured and crippled, and who confessed that she set fire to the building. Physicians have examined her, and pronounced her otherwise mentally sound. The coroner has relieved her of any legal stigma and her interests are in the hands of the Society for the Prevention of Cruelty to Children.

J. E. N.

LONDON LETTER.

London Feb. 11, 1888.

Editor Review.—At the last meeting of the Medico-Chirurgical Society Mr. Walsham read an interesting case of successful laparotomy for ruptured bladder. His patient was aged 22, and whilst somewhat intoxicated in a street brawl he had been batted in the abdomen by his opponent, his bladder being full at the time; he passed a night of great agony, and was brought to the hospital next morning, when he suffered so little from shock that he was able to walk into the surgery with assistance. He complained of

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pain in the lower part of the abdomen, and of having been unable to pass any urine since the blow, although his bladder was uncomfortably full at the time. The perineum was natural and there was no stricture; a catheter was passed, but the bladder was empty. On depressing the handle of the catheter, it was felt to free itself with a jerk and its points could be then felt more plainly than natural through the abdominal walls, bloody urine escaped after this, the flow varying with respiration. About twelve hours after the injury Mr. Walsham opened the abdomen, and having discovered an intra-peritoneal rent in the posterior wall of the bladder sewed it up with nine Lembert sutures. The sutures were passed through the muscular and peritoneal coats only, and one was placed above and below the upper and lower ends of the wound repectively. The bladder having been forcibly injected with eight ounces of boric acid solution and found water-tight, the peritoneum was irrigated with about two gallons of warm boric-acid solution, and the abdominal wound closed as in ovariotomy. A catheter was left in the bladder for two hours, and the patient was subsequently reminded to pass his urine every four hours: there was very little shock and the patient made a good recovery. Mr. Walsham concluded his paper with an analysis of the seventeen cases in which this operation has hitherto been performed for ruptured bladder. In three of the cases the rupture was extra-peritoneal. Two of these patients died from shock the third recovered. Of the fourteen cases of intra peritoneal rupture in three no sutures were used and one patient recovered, of the remaining eleven, five recovered and six died. The points specially discussed by the author in his paper related to the advisability of early operation, the importance of using a suture which will not become softened too soon, and of ascertaining before closing the abdominal cavity that there is no leakage from the bladder, the cleansing of the peritoneal cavity, the unadvisability of a preliminary incision in the perineum, or of a subsequent incision in that region for the purposes of drainage, and the question of tying in a catheter. On the matter of distending the bladder after operation to make sure that there was no leakage there seemed to be a tolerably unanimous approval of the procedure. Indeed it would seem to be a precaution which no surgeon ought in future to omit to take.

Some interesting communications have lately been made to the Obstetrical Society on the influence of ergot on the uterus in the puerperal state. Drs. Herman and C. O. Fowler undertook a series of measurements to ascertain the height of the uterus above the pubes on successive days of the lying-in in two sets of patients, one set (fifty-eight in number) treated with an ergot mixture for a fortnight after labor, the other set (sixty-eight in number) given a single dose of ergot after labor and no more. They found that in the cases treated by the continuous administration of ergot, the uterus diminished more rapidly in size, than in those in which one dose only was given. They also compared the two sets of cases as to the duration of the lochial discharge, but on this they did not find that the ergot treatment produced any appreciable effect.

Dr. Boxall read a paper somewhat to the same effect. He contrasted two series of cases each referring to a hundred patients. Every alternate patient admitted to the lying-in hospital under his care was given a mixture certaining twenty-five minims of tincture of ergot three times a day during the first three days of lying-in. By contrasting the two series of observations thus obtained he arrived at the following conclusions: 1. That the routine administration of ergot during the first three days of the puerperium exercised no appreciable effect on the date at which the lochia ceased (thus agreeing with the experience of the authors of the former paper), the practice of giving ergot mixture during the three days following delivery tended to prevent the formation of clots, to hasten their expulsion, and to diminish the frequency, intensity and duration of after-pains. 2. That if omitted at first but given subsequently, the ergot tended to promote the expulsion of

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clots and to relieve the after-pains. He considered that the difference observable in the results in his two series of cases would have been greater had it not been for the routine practice he adopted of administering a douche at 110° F. to 115° F., immediately after labor and twice a day during the puerperium until the lochia ceased, as this treatment had a powerfully stimulant effect upon the uterus.

The subject of the prognosis as to duration of life in cases of albuminuric retinitis has been discussed more than once, lately at the Ophthalmological Society. The last occasion was in consequence of a paper by Dr. Miley who had most carefully investigated the statistics of the London Hospital records in this particular, and had formulated his conclusions with admirable pains. He had a total of fifty-one cases in which retinal changes had been discovered, and of these no less than forty-five at the time of his writing the paper were known to be dead: the remaining six were believed to be living but they had only left the hospital shortly before his paper was put together. Not one of the patients had lived for more than eighteen months after the retinal affection was first seen. This in itself is a startling and most important fact, and it was practically confirmed by the experience of the subsequent speakers. It appeared however, that in private practice the outlook was not quite so hopeless, and no doubt one reason for this would be that there would be a much greater likelihood of an earlier recognition of the symptom, for as a rule patients do not come into the hospital until they are too ill to do any work, whilst in private they fly off to a doctor directly there is anything the matter with them.

In one particular there seems a possibility of a modification in the prognosis, and that is when the changes are found in one eye only. Some cases were instanced where this had been observed, in which the disease had not necessarily proved fatal. The great difficulty of distinguishing between neuro-retinitis from brain disease and that from retinal disease was insisted upon as a possible explanation of some of the cases where life was supposed to have been prolonged in cases of alleged albuminuric retinitis.

The state of the Crown Prince of Germany continues to be an absorbing topic of conversation wherever medical men are met together. The only thing that seems quite certain is that the disease is not cancer in any form, an opinion which many over here believed all along, simply from the clinical history and in spite of the confident assertions of the German specialists who will not rank much higher in public estimation from their behavior in this case. Now that tracheotomy has been performed we may fairly hope we shall not have such incessant and contradictory telegrams as to his state, for as no further operation can be required there will be nothing to conceal. I suppose Sir Morell Mackenzie will now tell us that he has been right all along, which may be quite true, but he has never made known his views, and it has been a matter of much comment here that a man of such enormous experience as his is, should not be able to make a positive and intelligible diagnosis. I confess I think it was a case with him of would not rather than could not.

R. M.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

[CONCLUDED FROM PAGE 196.]

DR. MEISENBACH.—There is not a man practicing surgery who may not at some time be brought face to face with the condition which has been described by Dr. Mudd. I have met with only one case that I now recollect in which there was probably a rupture of the femoral artery. This case occurred in a man who was working under a railroad car, a barrel which had been placed under one end to prop it up gave way and struck the man on the thigh. When I saw the patient he presented very much the appearance that Dr. Mudd has described: the leg was shortened, out of line, and there was a bend in the thigh; the thigh was very thick and tense. There was a wound into which I could introduce my finger, and through which a portion of the thigh bone protruded. At the

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time I examined him I was very much in doubt as to whether there was any pulsation of the tibial artery, and whether the femoral artery was not ruptured. I could not positively determine. I treated the case conservatively, put on a long Lister splint and applied ice and watched results. After a number of hours I found a distinct but very small beat in the posterior tibial artery. But the circulation became stronger and after a number of days I was enabled to put on a Hodgen splint, and treating the wound as aseptically as I knew how had the satisfaction of getting a very good union of the thigh bone, without shortening. The man's in good condition and has never suffered any evil consequences. I think Dr. Mudd struck the key note in saying that where the artery is involved, where the fracture is such as to leave no doubt as to the rupture of the artery, the simple fracture should be converted into a compound one. Why should the surgeon hesitate to make a simple fracture compound in this case? He is just as much justified in cutting down and making a simple fracture of the thigh a compound fracture as he is in cutting down upon the humerus and wiring the ends of the bones together. There is no greater danger in the one case then there is in the other. The compression at the pubes, acts, it seems to me, in the same way that does the placing of a ligature around both vessels at the proximal end; the difference of course being in favor of opening the wound and ligating the vessels at the site of injury. I think Dr. Mudd stated that the man fell out of a window. I think that ruptures and injuries of arteries are very often determined by the direction in which the force which causes the injuries to the artery is applied. Thus an injury which has a tendency to produce an acute bending of the limb at the time of the reception of the injury would be much more liable to injure an artery, that is, drive the bone into the artery, or rub it across the artery in such a way as to cause a rupture than in a case where the artery would not come into line. Thus any injury which has a tendency to bend the limb at an acute angle would have a greater tendency to drive the bone against the artery in such a way as to rupture it, entirely or partially, and to be followed by rupture in the course of time producing an aneurism or some other condition which involves rupture.

Dr. D. V. Dean.—I wish to say only that in such cases as Dr. Mudd has cited, in my opinion the impropriety would consist in not making the wound an open one even for explorative purposes, and afterward adopting such procedures as might be found necessary.

Dr. Broome.—I rather incline to the conservative practice of surgery, and would like to have seen conservative principles applied in this case. You know it was said of the father of American surgery that he never spilled a drop of blood uselessly. And I think now when occasionally I hear reports read before this society, that perhaps we ought to retnrn to those principles. I know just how difficult it is to determine what to do under circumstances like those stated by Dr. Mudd. Here is a large, stout man, who has fallen and received a very severe injury; he finds that the skin is immensely tense and everything points to an abundant hemorrhage underneath the skin; the circulation in the extremity is very feeble, if there is any at all. But I understand that in this case there was some circulation, and I think the circulation was growing stronger. Furthermore, I infer from Dr. Mudd's statement that there was a clot, and that there was no hemorrhage at the time of the operation. The question is, what would have been the results had he clung to the principle to which I have just referred. I would like to know what he thinks about it himself. In the case of the policeman to which Dr. Mudd referred, the patient was seen immediately after he was shot; of course there was hemorrhage at that time; but in the case which he saw after three or four day's standing, blood clot had formed and no hemorrhage, and the bleeding did not occur again until after he cut down upon the part. I would have liked to have seen compression applied in this case and a conservative course adopted. I think we should be very careful and cautious at all events. I should probably have done just what Dr. Mudd did, had it been my case, still I would like to have the doctor tell us what he thinks would have been the result had a conservative practice been followed in the case.

Dr. Mudd.—The artery at the point of its rupture is included in pretty firm tissue which forms Hunter's canal, and it is pretty closely fixed to the bone. The artery could not readily elude the bone, and it was cut by the sharp end of the bone fairly across. The conservative surgery of the old authors, of recent authors and of all other authorities, so far as I know, would have suggested, at the time that we saw this case on Wednesday last, and at the time Dr. Broome saw it, that we amputate without further delay. Gangrene was then present, and the foot showed no evidence of a return of circulation. The return of the circulation was evident on the skin of the shin, perhaps one third of the way

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up; but the gangrenous process was already established, and my belief is that it was proceeding up the limb; and the question which presented itself to me was not whether we could save the whole of the leg, but any portion of it below the knee, and the effort to occomplish this determined the first exploratory incision. I was satisfied that with the circulation in the condition which we found it; with a large clot present in the soft tissues; with the decomposition which was sure to occur; with the grangrene already established and sepsis already present; that we should have the gangrene extending rapidly unless that wound was cleaned out. In other words, this patient would have died if we had not amputated the leg, unless we could restore the circulation more perfectly than it was at that time, or more perfectly than nature could have re-established it under the circumstances. I hesitate to make a suggestion enlarging the field of operative surgery. It has extended so rapidly, has involved so many new questions, that even the oldest heads are puzzled to know where to stop and what to do, and it was only after considering the danger which would follow the conservative method of temporizing with such an injury, and thinking of the fatal results which have followed in the past, that I was led to adopt this method of direct and immediate interference; and I believe it to be a conservative plan because although primary hemorrhage was arrested here, the very conditions that we found, showed that the hemorrhage would have recurred if the man had survived the gangrene. The point that I endeavored to make plain, I believe is a good one; towit: that the gangrene is much more likely to supervene when we have an injury to the artery with such a tense condition of tissues as we had here, with the artery compressed, the venous circulation disturbed because of the pressure; and with the sheath of the artery, which supplies the blood which gives nourishment to the coats of the vessels, detached; than if we open up and cleanse the part, free it from this pressure, ligate the artery and vein if necessary, and put the part in a condition to develop the collateral circulation. If you will take the five hundred or more cases of fracture reported by Dr. Dennis a year ago, and the cases that have come under the observatian of other men who practice surgery today, and see the good results that follow the practice of aseptic surgery in the treatment of compound fractures, you will readily conceive and concede that it is conservative surgery to ligate the artery and make the simple fracture compound. If there is anything that brings to the surgeon an uneasy pillow, it is watching these cases of injury of the arteries and temporizing with them, depending upon pressure; waiting for secondary hemorrhage to come to demand the interference that he ought to have made at first.

Stated meeting, Feb. 11, 1888. The President, Y. H. Bond M. D., in the chair. J. B. Pritchard, M. D., Secretary.

Dr. W. B. Dorsett.—The patient to whom this brain belonged was a woman fifty-two years of age, a native of Ireland. She was admitted to the hospital, the last time, Jan. 10, with hemiplegia, involving the left side of the face, the superficial as well as the deep muscles, the tongue, the left arm and the left leg. It was very hard to get a history as to exactly when and how this paralysis occurred. She was a chronic drinker, and had been at the hospital a number of times, generally for alcoholism. After a long spree, she had sobered up sufficiently to make her way with a good deal of difficulty to the dispensary, and was sent thence to the hospital; and when she arrived, she was entirely sober; but she complained of a very severe pain in the right side of her head about the center of the right parietal bone; and, as I have stated, she was paralyzed. The diagnosis which we made at the time, from the history and symptoms, was hemorrhage into the right lateral ventricle. She was placed upon tonics and bromides. She died about ten days after her admission. In the post-mortem a cavity was found immediately above, and almost surrounding the ventricle, which was filled with broken-down brain tissue, which was in reality pus. The paralysis occurred on the opposite side from the lesion. While this is frequently the case, it is not always so. Flint, in his physiology of the encephalon, speaking of this condition, says "Occasionally we find paralysis on the same side as the injury, particularly in hemorrhage.

Dr. Frank R. Fry.—This abscess has occurred down in the centrum, not having affected the ganglia directly; it is right across the line of the motor fibres of the corona radiata cutting off the great bulk of them, if not

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all of them, as they pass from the Rolandic region down through the centrum. So far as the cause of the abscess is concerned, I am more inclined to attribute it, from the appearance of things, to an embolism, than to hemorrhage, and yet hemorrhage is a more frequent pathological condition in chronic alcoholics, the arteries becoming diseased and bursting.

Dr. Robert Barclay.—Did the doctor examine the base of the skull to see whether there was any disease there?

Dr. Dorsett.—I did not notice it particularly. I thought at first the sella turcica was diseased, but upon close examination I came to the conclusion that it was not.

Dr. Barclay.—Very often abscesses are formed in different parts of the brain from ear disease, without caries of the temporal bone; and in a study which I made of abscess of the brain, I observed that a number of surgeons gave as the cause, injuries in about 27 per cent and middle-ear disease in about 25 per cent. This disease is very insidious and it is always wise to be on the lookout to see whether we can not find a history of traumatism, or evidences of it and by an examination of the middle-ear, to see also if there has been any disease there. Although the middle-ear disease may have been cured, the abscess previously induced in the brain may still persist in an insidious way. Those familiar with the subject know that there is a latency in the symptoms of cerebral abscess. The trouble comes on very stealthily with headache and various other indefinite symptoms, which for a while may seem to disappear, not presenting themselves again for weeks or months; in fact I have read of two cases that were supposed to have existed for twenty years. I merely mention these facts as the etiology in this case is obscure.

Dr. Fry.—Did Dr. Dorsett notice the condition of the large arteries at the base of the brain?

Dr. Dorsett.—Yes, sir; but I did not observe anything pathological.

Dr. Broome.—The practical point in the case is that a group of muscles was paralyzed; which corroborates the conclusions of Lucas Championniere as to the topography of the surgery of the head; and I presume if this case had come under his care, he would have applied the trephine immediately back of the coronal suture upon the parietal bone; at all events, such a course would be in accordance with his teaching.

It is said that when an abscess is high up in the hemisphere of the brain, it produces paralysis simply of the leg and arm and that when it is low down, it extends to the face as well. I did not arrive in time to hear all the remarks of Dr. Dorsett in relation to the case, and what I know of the symptomatology, I have learned from the answers to a few questions that have been asked, viz., that there was paralysis of the left arm and of the face, with an inability perfectly to close the eye upon the left side. I am ready to admit that I am not capable of definitely determining the location of an abscess in the brain under any and all circumstances. In some cases I may, if there be definite symptoms indicating abscess, and I find that certain parts are paralyzed. One-third of the anterior portion of one-half of the brain may be destroyed, and, we may have no symptoms indicating the existence of abscess. We may have abscess affecting the lower and posterior portion of the brain the cerebellum, and yet not be able to determine its existence with certainty. Connecting the symptoms that have been presented, with an abscess that we discover on post-mortem examination, is like fighting a battle over again; we can see now how we should have fought. But then we had to meet the indications as they arose; we did not know what was in advance of us.

We feel that we can explain the symptomatology that was presented, because of our being able to locate the abscess, but that is not necessarily the case. We have symptoms in connection with brain affections, the meaning of which it is impossible for us to determine. In the vast majority of cases we cannot discover the pathological condition that gives rise to insanity. So it is with the motor and sensory symptoms, in many instances. I ques-

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tion what may have been the degree of pressure that was exerted on the crura cerebri from this abscess. I question what may have been the pressure exerted upon the pons Varoli. May not this facial paralysis have arisen from pressure upon the facial nerve in the pons Varolii? It is a possibility, and I think there is a strong probability, that it was. So that we can not, as has been stated, attribute the symptomatology simply to an implication of the internal capsule.

Dr. I. N. Love read a paper on "The Peroxide of Hydrogen as a Remedial Agent." (See page 197.)

Dr. Coles.—How does the doctor use the remedy in whooping-cough and hay fever.

Dr. Love.—I have used it by means of a syringe, applying it gently through the nostrils and through the back part of the throat.

Dr. D. V. Dean.—I have used the peroxide of hydrogen to a considerable extent for some time, in a variety of cases in which I have found it indicated. An advantage which this remedy has over most medicines is that the indications for, and limitations of,its use are very easily determined by any physician who will exercise a little thought, for its sole action consists in oxidation.

As ozone is condensed oxygen or oxidized oxygen, the molecule, O_3 containing one atom of loosely bound oxygen, so hydrogen peroxide contains in one molecule, H_2O_2, water with a loosely bound additional atom of oxygen, that readily separates to oxidize oxidizable substances. When we want slower or more rapid, milder or more severe, oxidation, hydrogen peroxide is, in many cases, a valuable remedy, as we can dilute, and manage, it at will. The mistake is often made of taking the volume-solution as the per cent, and of taking the ordinary solution of shops as pure hydrogen peroxide; and these mistakes may lead to evil results. Pure hydrogen peroxide is, of course, 100 per cent, but it yields 575 times its volume of oxygen; hence, a ten-volume solution, like Mallinckrodt's, is a 2. 1 per cent. solution. It is now believed that in nearly all oxidation or combustion hydrogen peroxide appears as an intermediate formation, these processes do not occur except in the presence of moisture. Perfectly dry carbon mon oxide and oxygen will not explode even with the electric spark; nor will perfectly dry charcoal and oxygen ignite.

It goes without saying, solution of hydrogen peroxide should not be used with syringes or spraying-apparatus having metallic nozzles or tubes.

Some months ago, I became dissatisfied with what had been furnished me, on a few occasions from drug stores, when I had prescribed Mallinckrodt's peroxide; and, on telephoning to the factory, they sent me the fresh preparation which was satisfactory; and I have since always found it good, in the original packages. The oxygen is so easily given off that it becomes necessary for the manufacturers to add a small quantity of acid to keep it. The oxygen in this decomposition goes to form water and not ozone. If thus decomposed, in the light, warmth, or open bottle, the solution is weaker in peroxide and relatively more acid, and the solution acts disadvantageously in both ways.

I have used the remedy in some cases of diphtheria such as Dr. Love mentioned. In one case recently which was very near the point of death when I first saw the patient, I succeeded by removing much of the membrane in relieving the disturbed respiration, so that it became much freer; in another case, occurring subsequently in the same family, the membrane was very thick and tenacious; I succeeded partly by undermining in loosening the deposits which came away in masses,like buttons from the tonsils. I always employ emollient applications after its use in diphtheria.

Dr. Barclay.—I was a little surprised at the introduction of the doctor's address, because I was not aware that there were any "therapeutic nihilists" opposing the use of the peroxide of hydrogen. It has been in use a great many years among aurists, and I have heard it spoken of very often in general practice, and I supposed it was in general use among practitioners in all fields of medicine. The attention of the general profession has

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often been called to it by aurists who have found it most useful. As Dr. Pollak has stated, you will find in the transactions of the American Otological Society for 1885, a very excellent article by Dr. C. H. Burnett of Philadelphia, showing the method of manipulation and the other re agents that may be used with the peroxide of hydrogen in very obstinate and offensive cases of chronic otorrhea; I do not agree with Dr. Pollak entirely when he says all that is necessary is simply to drop it into the ear, because I still find use for the syringe in these middle ear troubles, still it is a very valuable remedy, and that is a good way to use it with struggling children.

I call the attention of the members to the above mentioned article.

Dr. Frank Glasgow.—I simply want to add my testimony to that of Dr. Love in regard to the use of this chemical in diphtheria. The remedy can not be used with impunity. Last fall I procured some specimens of the drug which greatly disappointed me; they were so acid that they were positively painful to the nasal membrane, it fact they were entirely worthless. I have used it in quite a number of cases of nasal diphtheria in the past six months with excellent results. The only application which I have made to the nasal cavity has been hydrogen peroxide, one, to two water, injected by means of a small glass syringe, and it has caused the membrane to be expelled in many cases, the mass coming away shortly after using it. Then there is another fact that I have observed in using it in the nose; I am not careful with regard to the quantity, and of course the child swallows much of the fluid, I have noticed that the complexion of the child clears up very materially, the cheeks become red, the sallow, yellow, cachectic look disappears. I have noticed this in quite a number of cases; also that when I had a case of bilateral pneumonia recently in a child two years of age, I concluded to try the effect of this remedy given internally. The child was breathing with difficulty, 92 per minute and had been doing so for some time. I gave the child forty nearly a teaspoonful of peroxide of hydrogen in water, by the mouth, and there was a very decided effect on the complexion, the same as that I had noticed in the diphtheria cases. I gave her several doses and the complexion cleared up very much. I not long since had read an article upon the injection of oxygen gas into the rectum, I gave her an injection per rectum also. This did not affect the patient so markedly. I think it was simply a palliative measure.

In regard to cleansing abscess cavities, I have washed out cavities with a soft gum catheter, introducing the tube to the bottom and moving it around until I thought there was no pus left; but upon washing it out with peroxide of hydrogen it foamed out as beer would from a keg, showing that the cavity was not clean. We can not clean it out with anything so thoroughly as by using the peroxide of hydrogen. I have used it in some cases of consumption with only temporary benefit; it seems to act merely as a stimulant.

Dr. Wm. Moore.—My experience with the peroxide of hydrogen has been limited to four or five cases of nasal diphtheria, and I have been disappointed. In the first case both nostrils were filled up with the characteristic membrane, projecting exteriorly. This had been in existence about four or five days when I tried an injection of fifty per cent strength of peroxide of hydrogen; and certainly in that case, as the writer has stated, it melted away magically, and I thought the long sought panacea had been found. In the next case, where there was very little membrane, I persisted in its use a couple of days, and destroyed that also. In the third case, the child being in the same family as the others, I concluded preventive measures were certainly indicated, and in advance of the formation of the membrane in the nose, I commenced the use of a fifty per cent strength of the drug, injecting it into both cavities, throwing it into the pharynx, it foamed out and the child expectorated very quickly, but in spite of these injections the membrane formed and the child died. These several specimens of the drug were not obtained from the same drug-store.

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The last may have been a poor quality. In the fourth case, where there was no nasal complications, I directed the use of the full strength of the peroxide of hydrogen, not with an atomizer, but with probang of absorbent cotton, freely applied; and it seemed to have no effect whatever. I would like to ask Dr. Love if the six successive cases which he reported were all nasal cases.

DR. LOVE.—Not all.

DR. MOORE.—Was there a failure in any case in which there was nasal obstruction?

DR. LOVE.—No sir.

DR. WILLIAM PORTER.—This is certainly an interesting paper and this agent is an important one, if in the majority of cases it will distroy the diphtheritic membrane. I look upon the nasal complication as one of the most fatal of the disease. I always fear the result in a case of diphtheria in which I find there is much trouble in the nose and upper pharynx, not only is it difficult to get at, but the absorption from these inner surfaces is often rapid. I am much pleased with the testimony that has been given here to-night in regard to this comparatively new agent, for though, as has been stated, it is not new in the field of aural surgery, it has not been used to a great extent in general practice through the West, for its virtues have not been entirely understood. I have used it for sometime as a cleansing agent, but lately in two cases, which I will not now relate, I employed it with a view to the disintegration of the false membrane of exudation, and I was gratified with the effect. I am convinced that it does combine with albuminoid substances and that it does disintegrate false membranes. An interesting case, one that is not of much practical import, yet an interesting one to me, occurred recently in my practice. A patient came to me from some little distance suffering with a suppuration of the antrum. I had a dentist remove the tooth nearest the antrum—one where there was some pain upon pressure. There was no communication with the cavity after the tooth was extracted until a small drill was used, perforating the antrum. Then I injected the peroxide into the antrum with excellent result The cavity was rapidly cleansed and the pa tient was greatly relieved, so that he left fo his home after a week's treatment, thinkin that he could take care of himself, he bein a physician. I have since received word fro him that he is cleansing the cavity very nicel by injecting a few drops of the peroxide o hydrogen into it.

I think this is a practical discussion to-nigh one that will do good generally. It brings t the notice of the profession a comparativel new remedy, and one which has certainl shown itself to be valuable; one that can d little harm if careful selection of the agent i made.

DR. LOVE.—I was aware that this remed had been used in otology; I am aware that i has been used by dentists for some time; an that it has been used by surgeons in cleanin pus cavities. It is an old remedy for thos purposes. I did not undertake to state a the uses which might be made of it, or fo which it had been recommended in the pas

Up to the time that this paper was writte I was unable anywhere to find any literatur upon the subject of its use in diptheria. Sinc the paper was written I have seen a copy o the *Journal of Obstetrics* containing a pape by Dr. Marcus P. Hatfield of Chicago, en titled "Preliminary Notes concerning the Us of Peroxide of Hydrogen in Diptheria," an his position is similar to mine.

Some of the gentlemen have spoken of th peroxide of hydrogen as being nothing mo than a cleansing agent. Megall places it thir in the list of germicides, and I can understan that an agent which is so active in cleansin as it is, must be rather hard on germs; bu even if it were nothing but a cleansing agen in diphtheria, it would certainly be very va uable. I have used it in whooping-cough onl in two cases, but unquestionably with adva tage, and putting the recent position assume by modern bacteriologists regarding the pat ology of whooping-cough and the applicatio of this remedy together, I think it was poss bly due to the germicide effect.

My remarks with regard to therapeuti

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nihilism were not used in relation to this drug. They were used when I was referring to the treatment of diphtheria. I have seen much literature that was somewhat nihilistic on the subject of diphtheria—decidedly negative—and I desired to put myself on record as having no patience with that sort of thing.

I question the propriety of using the peroxide of hydrogen to anticipate nasal diphtheria. I have found a number of the solutions which I have used quite irritating; they caused considerable smarting, and a question arose in my mind whether in full strength or given in half strength, the amount of irritation upon the sensitive membrane may not reach the point of denudation, and thus furnish a good surface for the absorption of the diphtheritic poison. So I will suggest to Dr. Moore that the use of this drug is rather contra-indicated in the nasal cavity prior to the appearance of the diphtheritic membrane. And I will say that after using it in the nasal cavity, I would use a soothing ointment.

Dr. Pollack says he does not dilute the drug. The solutions which I have procured from the drug-stores have been very unreliable, I don't believe more than one in three has given satisfaction, and so I sent directly to Mr. Mallinkrodt and got some which was good. More than once I have found the solution very irritating even when diluted to one part in three, so that it produced a smarting, and in two cases where some of it got into the eyes of the patients there was considerable smarting, so that this would be a reason for diluting the drug. I believe that time will enable me to make an even more pronounced statement as to the value of this agent. Dr. Dean advises against the use of metallic syringes. I did not touch upon that point in my paper, from the fact that in connection with the chemical components of the drug, I stated that in the presence of metals decomposition took place, and I felt it would be superfluous to draw attention to the necessity of avoiding the use of metal syringes.

SELECTIONS.

THE CONDITIONS CONDUCIVE TO THE EARLIEST POSSIBLE HEALING OF OPERATION WOUNDS.

In a paper read before the surgical section of the New York Academy of medicine Jan. 9, 1888, (*Med. Record*) on the above subject, Dr. W. W. Keen said his object was to emphasize the best methods now in use and to add a few practical hints, rather than to present much that was new. The salient points of the paper were as follows:

1 The use of the antiseptic method before and during the operation and at the later dressings.

2. Thorough drainage.

3. Complete approximation of both edges and raw surfaces.

4. The use of antiseptic dressings.

5. Securing absolute rest during the period of repair.

Boiling water and strict clean liness belong as much to the antiseptic method as corrosive sublimate and carbolic acid.

Iodoform on account of its odor and inefficiency as an antiseptic he had abandoned. Where practicable, the surface of the part to be operated upon should be kept thoroughly clean during the twenty-four hours preceding the operation, particularly those parts thickly covered with hair.

Rubber or other fenestrated tubes are best for drainage during the first twenty-four hours. Capillary drains made of cat-gut, horse-hair, or rubber threads answer best for moderate oozing. His favorite method is in the first dressing, to introduce a rubber tube of suitable size, and with it from fifteen to thirty threads of horse hair. At the end of twenty-four hours the tube is carefully withdrawn leaving the threads of horsehair *in situ*. At the second dressing on the fifth day a part or all of the horsehair is removed, according to circumstances. The threads are removed singly so as not to interfere with, or break up, the delicate knitting of the wound.

The tendency to retain the first dressing upon the wound till the healing process is

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completed or nearly so, is an error. Fresh dressing should be applied on the second and fifth days.

Absolute immobility of the part is of the first importance. This is accomplished by means of adhesive plasters and bandages.

In six cases of scirrhus of the breast, one of which had scirrhus of both breasts,union was secured by the fifth day following the operation. In one case of adenoma of the breast, in one of atrophic scirrhus of the breast, and in one of lymphadenoid sarcoma of the arm, union was complete on the seventh day. In one case of goitre in which an almost complete thyroidectomy was done, and in one in which eighteen enlarged lymphatics of the neck were removed, requiring an incision from the mastoid process to the clavicle, union was complete on the fifth day. One case of arterio-venous aneurism of the arm was well in eight days.

The notable feature of Dr. Keen's treatment of these cases is the minute attention to details, the importance of which cannot be emphasized too much.

Just how much the antiseptic method has to do with the wonderful results in surgical operations, that are now being obtained, is yet to be determined. One thing we have learned from it, that cleanliness plays a very important part.

We have seen the antiseptic methods, as Dr. Keen has defined it, used in almost daily operations during month after month, without having a single case of suppuration to follow. We have seen similar operations during as long a period of time, in which cleanliness was the only antiseptic precaution taken, and no suppuration followed.

THE WILLIAM F. JENKS MEMORIAL PRIZE.

The First Triennial Prize, of Two Hundred and Fifty Dollars, under the Deed of Trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on.

"THE DIAGNOSIS AND TREATMENT OF EXTRA-UTERINE PREGNANCY."

The conditions annexed by the founder of this prize are, that the "prize or award must always be for some subject connected with Obstetrics, or the Diseases of Women, or the Diseases of Children;" and that the Trustees under this deed for the time being, can in their discretion publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may in their judgment be sufficient for that purpose, and the essay or paper be considered by them worthy of publication. If published, the distribution of said essay shall be entirely under the control of said Trustees. In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia."

The prize is open for competition to the whole world, but the essay must be the production of a single person.

The essay, which must be written in the English language, or if in foreign language, accompanied by an English translation, should be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., addressed to Ellwood Wilson M.D., Chairman of the William F. Jenks Prize Committee, before January 1, 1889.

Each essay must be distinguished by a motto and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The Committee reserves the right to make no award if no essay submitted is considered worthy of the prize.

THE AUTHORITY AND RESPONSIBILITY OF PHYSICIANS.

BY J. M. HALLY, M. D.

I would offer a few thoughts with regard to the limit, or what ought to be the limit, of the doctor's authority as related to and linked with his responsibility. When must his en-

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deavors to combat disease and death cease? When the patient is to all appearance in the last agony, and life and death are struggling for the mastery? Or when, to all intents and purposes the patient is dead apparently, but when, with that deep insight which his medical education, backed by experience gained at the bedside, enables him to see the secret workings of the human organism, and there discover the faintest shadow of a possibility of his patient's life being saved, the seemingly lifeless clay resuscitated and given back to his family and society, what authority could be powerful enough to step in and put a stop to his efforts, saying: "Thus far shalt thou go, and no farther?"

Some time ago I was placed in a strange predicament apropos of the above considerations, and was forced to yield and give up the struggle.

These are questions which the country doctor, miles away from the nearest of his brethren, is called upon sometimes to decide upon in his own mind, and from a pressure of circumstances, contrary to his conscience.

Sometime since, I was placed in a strange case, being nineteen miles from the nearest physician and compllled in spite of remonstrances and advice, which I gave freely, to allow a man to be shipped 150 miles and buried who I thought was alive. This is the case.

The person, an epileptic, fell into a creek, and was picked up sometime afterwards for drowned, but after being shipped several miles and lying in a cold freight shed in his wet clothing, on a very cold day, his body or limbs had not stiffened after eight hours, at which time I was called to see the body. I found no rigor mortis, not even in the small joints. The blood was flowing in two bright red streams from his ear and the tip of his nose, where the rats had been nibbling them. When I opened his eye with my finger and thumb there was no glassy film, the eye was bright, and, when I withdrew my finger and thumb, the eye closed itself, showing contractive power still in the muscles; his finger-nails were white, and, on strings being tied around the fingers, the nails became purple, showing plainly that the blood was circulating, although slowly, and being retarded in its effort to return to the heart, caused this purple color to appear, indicating venous obstruction, which could not occur in a dead man.

The man was a stranger in the place, being one of a party of surveyors from Denver, which was his home, and his comrades seemed very anxious to have him taken off on their train which was then almost due; so he was put into the box again, from which I had had him taken for examination, and carted to the depot, about half a mile. When arrived there, one of the party, who seemed to be in charge of the same, said if there was the most remote chance for him to let him have it and not ship him that night. I told him of the evidence in favor of his being alive; but the train having arrived by that time, and the conductor being anxious to be off, after a short consultation among themselves his comrades decided, contrary to my advice, to put him on the train, which they did, and took him off.

Now, had I been empowered to hold the man, in spite of all argument to the contrary, who knows but that the poor fellow might be alive to-day. My opinion is that the doctor should be possessed of a power to use his own judgment in such cases, which it is to be hoped are rare; but rare as they may be, some valuable lives are, no doubt, lost for want of such authority being resident in the doctor, to use at his discretion when emergencies arise. Such powers should be in contradiction to all other claims to the contrary. If such laws giving such powers are existing I do not know of them, and would be pleased to be enlightened on that point. I believe many doctors are in the dark regarding such subjects, and such points should be brought up through the medium of the medical journals. My conscience has often troubled me with regard to the time when all efforts to save life should be given up, even when relatives are unwilling that further trial should be made because the case may look hopeless, and I am sorry to say that too many doctors are willing to give up a case that looks rather doubtful because they don't wish to have the name of having lost a case, and so expose their reputation to damage. I believe in the old adage, "Where there is life there is hope," and the doctor should be the one to see hope when often there is very little life. His experience places him in such a position.—*The Medical Register.*

Treatment of Ulcers of the Leg.—During a period of eight months, the treatment of ulcers of the leg as recommended by Dr. Unna, of Hamburg, was carried out by Dr. Philippè (*Brit Med Jour.*) in a series of sixty cases. Of these forty-five were cured, eight discontinued, and seven were unsuccessful.

The manner of applying the dressing may be briefly described as follows: On the carefully cleaned and shaven leg a moderately

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thick layer of warm zinc-gelatine (prepared according to the subjoined formula) is applied by means of an ordinary brush up to the limits of the ulcer, which receives a sprinkling of powdered iodoform or any other pulverized antiseptic; for instance, subnitrate of bismuth, boracic acid or naphthaline; this latter being especially serviceable in reducing the offensive smell of many ulcers. A small pad of medicated cotton-wool is then added as a covering for the sore, and a gauze roller (Lister) wound firmly rouud the whole, care being taken to cause the traction to work in the direction towards the center of the ulcer. When no more of the zinc-gelatine penetrates through the meshes of the gauze, the dressing may be considered to be completed. It is allowed to cool and become dry, whereupon the patient can be dismissed without further precautions. In some cases, and especially in the latter stages of treatment, the zinc-gelatine can be painted over the whole circumference of the leg, including the ulcer.

This dressing should be removed at the end of three or four days, in the above case it was best,however,to allow it to remain unchanged for a week, on account of the patients not being able to attend more frequently, and although it seemed evident that it would have been generally advisable to renew the dressing at shorter intervals, still the progress msde was, as a rule, satisfactory enough to permit of the longer period being adhered to.

The dressing can always be very easily removed with a pair of blunt-pointed bent scissors and, in case of need, a little warm water. It is of great advantage, for easy removal, to have shaved the leg before applying the dressing; the gauze which forms, with the zinc-gelatine, quite a compact casing, can then be pulled off the skin as readily as the peel from an orange. If the discharge should penetrate the bandage before the end of the week, a sprinkling of iodoform may be applied to the soaked spot, or a piece of clean linen simply applied as a covering, to be renewed when it becomes soiled. The zinc-gelatine is thus prepared: Oxide of zinc, gelatine, aa 5 parts; aq. dest., 6 parts; glycerine pur., 8 parts; all by weight.

The gelatine is first dissolved in the wate at a moderately high temperature, the loss o water by evaporation being compensated for When the whole is reduced to a perfectly uni form and even mass, the oxide of zinc, finel powdered and mixed with as much water as i sufficient to produce a thin paste, is adde with the prescribed quantity of glycerin The whole is well stirred, and after makin up for evaporated water, poured out int cakes on a cool procelain slap. It will b found to be of the consistency of comm glue, of a pure white color, and devoid stickiness. For application, a sufficient qua tity is placed in a small pot, which stands i a saucepan of boiling water, in the same ma ner as carpenter's glue is treated. When di solved it should not be thicker than thin syru or common oil-paint. It generally requir the addition of a little water, especially whe the same pot-full has been treated a fe times.

The chief advantage derived from th method of treatment is the possibility of co ing the ulcer without confining the patients t their beds. Indeed, with the aid of this dres ing, even large ulcerations were rendere perfectly painless, so that our patients cou perform all kinds of work, even long befo the sores were healed. It will likewise b found to be a great advantage that the trea ment is not entrusted to the patients the selves, who often lack patience and sagaci enough accurately to carry out the instru tions given them. The uniform and fir compression it exercises on the leg will b found to be most serviceable in the treatme of varicose veins. Further, the discharg arising from the sores is effectually prevente from coming into contact with the health skin, while, on the other hand, it is able t penetrate freely enough to the surface of th dressing. It was often also noticed that th discharge of pus from the ulcers was consid erably reduced and the disagreeable odor a most entirely removed. The simplicity an cheapness of this dressing are likewise great in its faovr.

The duration of treatment varied from

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out three to sixteen weeks, which, it must be onfessed, does not seem to indicate a very apid recovery; but taking into consideration hat some of the patients had suffered for veral months and even years from their lcers, and further that whilst under treatent the patients were not incapacitated for ork, I think the results will appear fairly tisfactory.

[The majority of chronic ulcers of the leg not heal because of the low vitality of the rt; the legs are cold and circulation sluggish e best treatment that I have found for ese cases, is as follows. Pour water as hot the patient can bear it over the leg from knee to the foot until the leg feels hot to hand; take a powder (oxide zinc, one part; rn starch, four parts) and dust over the surce of the ulcers so long as any will adhere. velope the leg, in a thin laver of tton batting and hold this in place by a w turns of a roller bandage. In dressing the first remove the bandage, and then pour hot water over the cotton till it is oroughly saturated, when it can be readily ken off. The treatment described above ould be repeated daily. The hot water acts a stimulaut, and tends to induce permanent lality.]

An Abdominal Salpingotomy in the 1st Century.—A Russian lady, Mrs, atchef, contributes to a recent issue of the azette hebdomadaire des sciences medicales Montpellier" an interesting account of a se in which, in the year 1784, Dr. Charles ugustus Seydel of Sarepta, in the province Astrakan, Russia, diagnosticated an ovan tumor as large as the head of a child two ars old, attached to the uterus by a pedicle. his patient continued to suffer severely, spite of ordinary methods of treatment, he cided to attempt the removal of the tumor laparotomy. On the 21st of February he ened the abdomen by an oblique incision nding from the umbilicus to the right inal ring. The adhesions were found such as to render the removal the tumor impracticable, and it was discovered that the mass was not an ovarian tumor, but an eulargement of the Fallopian tube. It was tapped and drained, giving issue to a thick, chocolate-colored liquid. During the operation the protruded intestines were protected with a towel soaked in warm milk. The abdominal wound was closed at first only with a plaster, but afterward with sutures. For the first few days the discharge from the sac, a thick and fetid liquid, was removed at stated times with a silver tube, but as this grew more and more unsatisfactory, the doctor sucked it out with his mouth four times a day. The patient had fever for about a week, after which she improved steadily and the opening finally closed. She was heard from two years after the operation, and was then in perfect health. A decoction of cinchona bark and various balsamic preparations were employed in the treatment of the wound, and care was taken to prevent adhesion of the intestinal coils to the peritoneum by interposing pieces of linen soaked in oil of roses.—*N. Y. Med. Jour.*

How to Clean the Hands.—Dr. P. Fuerbritger, of Berlin, has published a pamphlet upon the disinfection of the surgeon's hands and finger-nails. From an abstract of this in the *Med. Press and Circular*, Jan. 11, 1888, we take the following, which the auther recommends as the speediest method of cleansing the hands, consistent with security.

1. The nails are to be cleansed dry (scraped or rubbed) from all visible dirt.

2. The hands are to be thoroughly scrubbed with a brush for a minute and a half in hot water and soap, special attention being paid to the edgs of the nails.

3. They are then to be washed for one miuute in alcohol (not under 80 per cent.), and then, before drying,

4. They are to be put into the disinfecting solution, 2 per cent. sublimate or 2 per cent. carbolic solution, and here to be thoroughly cleansed for another minute.

He claims for this method (1) Certainty of disinfection. (2) Saving of time. (3) Saving of the hands. (4) Smaller expence in the use

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of the sublimate.—*Med. and Surgical Reporter.*

At a meeting of the Pathological section of the Royal academy of Medicine in Ierland, Dec, 2, 1887, Dr. Neary read a paper on a case of Bilateral Anophthalmos, and exhibited a child, aged six weeks, who had been born suffering from the anomaly. The orbits and eyelids were well formed, but nothing representing an eyeball could be detected in either orbit.—*Lancet.*

BOOK REVIEWS.

A Manual of the Physical Diagnosis of Thoracic Diseases. By E. Darwin Hudson, Jr. A. M., M. D. Publisher, Wm. Wood & Co. For sale by J. H. Chambers & Co, St. Louis.

It is not a large book we note this time, but a valuable little one. There is much in these one-hundred and fifty pages that even an expert may read with profit, and yet it is plainly written. It is to be regretted that the talented author died before his book had left the press, but the duty of final finish has been well done by his friend Dr. Laurence Johnston.

The first few chapters are, of course, taken up with the statements of the principles diagnosis in the abstract and applied, and these are both concisely stated, and abstractly arranged. Especially is the regional anatomy carefully traced, and the frequent demands made upon the records of Flint, Walshe, Piorry, and others by no means suggest the idea of compilation, but the pages every where are full of original thought.

The book throughout is fully illustrated, and we notice that our old friend Gray contributes several cnts from his anatomical collection, but forgot to append his name.

We can hardly understand how a writer so frugal of space as our author, should insert a large cut from this same immortal Gray, twice within seventy-five pages.

Much time has evidently been expended upon the synopsis of lung and heart diseases, and these pages alone are worth the price of the whole book.

The publishers' work is well done by Wm Wood & Co, whose name is a guarantee in such matters. W. P.

Differential Diagnosis. A Manual of the Comparative Semeiology of the More Important Diseases. By F. de Haviland Hall M. D. etc. Third American Edition Thoroughly Revised and Greatly Enlarged Edited by Frank Woodbury, M. D., etc 8vo.,pp. 255. D. G. Brinton, Philadelphia (J. H. Chambers & Co., St. Louis).

In this book the author at once begins the discussion of disease, presuming that the anatomy and physiology have been learned elsewhere. The arrangement of the differential diagnostic points in parallel columns, is effective and convenient.

Part first deals with general diseases, one chapter being devoted to fevers, and a second to diseases of the blood. The second part is a well condensed delineation of local diseases based upon a physiological classification. The chapter upon nervous diseases is somewhat lengthy. Some gross errors occur, such as speaking of the termination of the spinal cord in the sacral canal, but these mistakes are few. We could wish that there were more illustrations in this chapter, for most of us need all such help possible in unraveling the mysteries of the brain and its immediate dependencies.

The chapter in which is considered the diseases of the respiratory apparatus is most condensed, and while there is nothing new in it, it shows familiarity with the subject which can only result from study and clinical advantage.

The chapter on diseases of the circulatory apparatus is very short—only a condensed aggregation in fact.

There are many evidences of Frank Woodbury's artistic touch and painstaking oversight in this little volume, while the house of D. G. Brinton need have no regrets for the general appearance.

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REPORT ON PROGRESS.

GENERAL MEDICINE.

BY R. M. KING, M. D.

I. STROTHANTHUS.

II. THE TREATMENT OF HABITUAL CONSTIPATION.—*Med. Register.*

III. HYDROFLUORIC ACID.

IV. THE THERAPEUTIC VALUE OF SALVE.—*Brit. Med. Jour.*, Dec., '87.

V. THE PHYSIOLOGICAL AND THERAPEUTICAL ACTIONS OF SOLANIN.—*Med. Record.*

VI. SOZOIODOL.—*Med. Record.*

VII. SODIUM FLUOSILICATE.—*Brit. Med. Jour.*

VIII. ANTIPYRIN IN MIGRAINE.—*Brit. Med. Jour.*

IX. RESORCIN IN CANCER.

STROPHANTHUS.

The above drug, introduced by Prof. Fraser, of Edinburgh, has in a very brief period gained a permanent hold on the professional confidence as a remedy of real therapeutic value. From Berlin, Paris, London, as well as from various points in the United States, come words of praise sufficient to justify the conclusion that as a cardio-vascular tonic the drug possesses real merit. This reputation has been gained, too, in the face of discouraging circumstances, such as the importation of a spurious article and the variable strength of different preparations made from the strophanthus seeds. The prevalent opinion as to the relative merits of the various preparations seems to be first, in favor of the alcoholic extract, second, the active principle, strophanthin, and third, to the tincture made from the seeds, after the fatty substance which largely predominates in them has been thoroughly exhausted by ether and then macerated in alcohol at 70° F. for a sufficient period of time.

The tincture thus made is said to be of a light yellow color and decidedly active. The dose to commence with ordinarily is from three to five drops, which may be increased to ten or fifteen, thrice daily, and continued, if not otherwise contraindicated, for a period of three or four weeks. So far as observed, it has no cumulative action like that of digitalis, and yet it is not free from danger of this kind.

It is thought to be peculiarly beneficial to a class of patients that digitalis will not reach, and in those conditions of heart and circulation for which digitalis is proscribed. Recently Prof. Drasche (*Therap. Gaz.*) in the *Vien. Med. Blatter*, has caused to be published his experience and observation with this remedy. The results obtained by this careful and painstaking experimenter are of such a positive character as to fully indicate its physiological and therapeutic action. The first trial was made on a healthy individual, and it was ascertained that five drops of the tincture given would in the space of three hours cause a fall in the pulse beat of from eight to twelve per minute, and that this effect would last for the greater part of the day. He found that after the administration of twenty drops of the same tincture the pulse which had previously registered 84 beats to the minute fell to 52, and that at the same time that this rapid change in pulse had occurred, no perceptible influence was exerted on respiration, and there was only a fall of one degree in temperature. Given hypodermatically in fifteen drop doses,

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it "caused great pain and swelling at point of injection," headache, vomiting and copious secretion of urine. These experiments were repeated several times, and the same results obtained. In pneumonia he found that when given in 5 drop doses for a period of twenty-four hours it caused a fall of pulse beat 18 to the minute, and an almost corresponding fall in the temperature. In phthisis its use was attended by the same good results, acting promptly and favorably, dissipating high temperature and lessening the frequency of pulse and respiration. He next tried it in a case of fatty heart "in a man 36 years of age and very pronounced symptoms." In this case he found that the tincture in 10 drop doses quieted the pulse beat, relieved the dyspnea, and naturally benefited the case. He states that one hundred and sixty drops of the tincture were given in five days without the slightest evil influence. In another case, similar to this one, 40 drops were given daily and the same marked results followed, and each time with a decided increase in secretion of urine. In several cases of aortic insufficiency the use of the strophanthus tincture invariably slowed the pulse, rendering it fuller and stronger and giving rise to quiet sleep, a condition of things that had not occurred for some time before. This experience alone, if fully corroborated by future use, is sufficient to place the remedy on the highest pinnnacle of practical utility and value. It proved equally efficacious in Prof. Drasche's hands when given for stenosis or insufficiency of mitral valves. One case we think worthy of mention specially. It was a mitral stenosis with greatly aggravated symptoms and extreme cyanosis. After a second dose of 45 drops had been given the pulse fell from 84 to 44 beats per minute, and the respiration from 36 to 18, the dyspnea disappearing, and the heart's action becoming stronger and less irregular. These experiments have done a good deal toward establishing the action of this wonderful drug upon a firm basis and fixing beyond cavil its true therapeutic importance. Another remarkable fact elicited by these investigations is its phenomenal effects on the excretions simply by raising the blood pressure in the kidneys rather than any influence exerted on the secreting structure of the organ. Our own experience with strophanthus, though limited, is, nevertheless, favorable, and indicates to us that the drug has a wide field of usefulness in diseases both of the cardiac and respiratory organs.

It is certainly a valuable agent in valvular weakness, attended by great irregularity, as well as frequency in the pulse beat. But it is on the dose that we would at this moment lay some stress. In consequence many times of the spuriousness of the drug employed and the variableness in the strength of the tinctures found in the shops, it is always safest to begin with two drops at a dose of the tincture ordinarily made and increase gradually until its peculiar effects have been seen.

Its taste is not specially disagreeable, and as the dose to commence with is small it can be given in almost any menstruum.

The Treatment of Habitual Constipation.

At a time when not only the tedious proceeding of massage, but actually manipulation of the abdomen by cannon balls (*vide Journal* for November 26th), is recommended for chronic constipation, a far simpler and more effectual way of inducing peristaltic action of the bowels, which has recently been discovered, should be brought to the knowledge of the profession generally. This consists of the injection into the rectum, by means of an ordinary glass syringe, of about half a teaspoonful or a teaspoonful of glycerin.

The fact that glycerin thus causes a ready action of the bowels was apparently discovered by a Dutch physician, Dr. Oidtmann, of Maastricht, who, however, deprived himself, at least to a great extent, of the credit of this discovery by advertising it as a nostrum in several medical journals. Dr. Anacker, of Chateau-Salins, who purchased the specific and found it to answer the purpose well, took the trouble to analyze the fluid supplied by

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Oidtmann for such injections, and found it to consist principally of glycerin, to which a small quantity of a preparation of conium and a sodium salt had been added. Dr. Anacker found that glycerine alone, without conium or the sodium salt, had exactly the same effect as Oidtmann's mixture.

On reading Anacker's paper in the *Deutsche Medicinische Wochenschrift* for September 15, last, I lost no time in giving this proceeding a trial. A number of patients, including some medical practitioners of great experience in the treatment of this troublesome disorder, have spoken to me in the highest terms of the value of this new plan. An evacuation generally takes place, either immediately or within a few minutes after the injection. The explanation of the effect given by Anacker, and which is no doubt the true one, is this: Glycerin, when brought into contact with the mucous membrane of the rectum, withdraws water from it, thus causing hyperemia and irritation of sentient nerves of the rectum, which in its turn leads reflexly to powerful peristaltic contractions, ending in defecation. The larger the accumulation of feces, the greater is the effect. There is no discomfort or pain, but the action takes place *cito, tute et jucunde.* Sometimes, however, a little throbbing is felt in the rectum for a few minutes afterwards. I feel sure that this plan, on account of its simplicity and readiness, will be found to constitute a veritable improvement in the therapeutics of constipation.

[Constipation in its etiology can be viewed from so many different standpoints that it becomes a matter of extreme difficulty to determine the exact remedy for each given case.

Each case, too, even if the cause which gave rise to it was known in the start, has many phases that call for a variety of remedies to combat it. This idea in connection with the thought that the action of drugs on the intestinal tract are not always the same, but that they may possibly have a direct, indirect and local action will preclude the argument of universality of speeificity in any given remedy. The explanation given by Dr. Anacker in reference to glycerin seems reasonable and may be absolutely true, but the main question to be determined is, does glycerin arouse the secretory or peristaltic action of the intestinal tract, or both, and is its action always universal? If its action cannot be specifically defined or universally proven, or the peculiar phase of a given case to which it is applicable set forth, then in common with other remedies for similar states it is only incidental to their relief, and not absolutely and positively curative.]

Hydrofluoric Acid.

From the foreign correspondent of the *Journal of the American Medical Association*, we learn the following facts concerning the value of hydrofluoric acid in pulmonary troubles. "A patient is allowed to pass one hour out of twenty-four in a room of the capacity of six metres, into which a current of air is pumped which first passes through a fluid composed of 100 grammes of hydrocfluoric acid and 300 grammes distilled water.

The acid possesses great attraction for water, therefore, the proportions of hydrofluoric acid taken up in the cold water would vary greatly with the bulk, pressure and velocity of the air current."

Apropos to this statement comes that of Dr. Herard, (*Therap. Gaz.*) whose long experience in the Paris hospitals and his more recent experiments with this remedy entitles him to be heard as one having authority to speak.

Doctor H., claims that hydrofluoric acid has undoubted antiseptic and anti-bacillary properties. The doctor further avers as a basis for his claims of the curative properties of this agent the satisfactory results and general effects that almost invariably follow its use. For example, he says that the appetite returns and digestion improves; vomiting ceases, nocturnal sweats disappear, diarrhea, becomes less frequent, the body weight increases, cough decreases, dyspnea improves, hemoptysis is controlled, expectoration diminishes, the sputa giving up its yellowish and

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greenish cast and assumes the natural white and frothy appearance again, and finally the number of bacilli in the sputa disappear. Yet with all this and more that is cheering in the further improvements of symptom, he says, that the lungs themselves are not correspondingly benefited. He finally concludes that the remedy is only valuable in the earlier stages of the disease before the affection has gone too far in its destructive work. Further that inhalations of this drug are not dangerous but with it should be combined other internal and external medication as well as the proper enforcement of sanitary and hygienic measures. To our minds the question of the value of this agent in tuberculosis hinges on the proof of a specific morbific agent and the power of the remedy to destroy the infecting germ.

If there exists such an agent and hydrofluoric acid has both antiseptic and antibacillary properties of a decided character, then surely the employment of the agent rests upon a solid basis.

The Therapeutical Value of Salol.

According to the most recent observations, the principal effect of the administration of salol, is to produce a marked and immediate remission of the pain in cases of acute rheumatism. Its effect on the temperature, however, is less marked than that obtained by means of the salicylate of sodium, and the relief afforded is of much shorter duration. In fact, unless the patient is kept well under the influence of the drug, the suffering returns with its orignal intensity. Salol is, to all intents and purposes, innocuous, and is said never to give rise to toxic symptoms. Even the discomfort which not infrequently follows the internal administration of salicylate of sodium has not been observed with salol. Hence, whenever the use of the former drug is contraindicated, salol will be found both useful and reliable. The best effects were obtained with it in the treatment of subacute rheumatism, and the patients soon learn to appreciate the relief which follows its administration. Salol is insoluble is pure water,but is slightly soluble in organic liquids of alkaline reaction. It is best given in the form of compressed tablets, pills, or in an emulsion.

[The above remedy is said to be an excellent application to wounds, as it prevents the development of bacilli. It is highly recommended in typhoid fever, cystitis and catarrh of the bladder rendering the urine completely aseptic. As an antiseptic it has been largely employed in phthisis and rheumatism with considerable satisfaction. The dose is from 1½ to 2 drachms daily.]

The Physiological and Therapeutical Actions of Solanin.

According to Clarus, solanin is a narcotic poison which has the property of paralyzing the spinal cord and vagus endings, and exciting the peripheric nerves (*The Therapeutic Gazette*, December 15, 1887). In former years Geneuil experimented with the drug, and came to the conclusion that solanin exerted its narcotic properties on the medulla oblongata, spinal cord, and nerve-branches, and thereby caused a paralysis of the extremities and of the sensitive and motoric nerves. Capparoni has recently conducted a series of experiments with solanin on man. His results are as follows: A very small dose of solanin (1.54 grain) will cause (especially in individuals with a sensitive stomach) a sensation of burning in the stomach, salivation, and nausea. All these symptoms prove that the drug causes a local irritation. When the drug is given where the stomach has been previously anesthetized, or when it is administered hypodermically, this irritation does not take place. The same dose causes a lessening of the pulse's frequency and of the respirations, and a decrease of the reflex activity of the excito-motor tendency of the spinal cord and medulla oblongata. Solanin does not seem to have any influence on the brain-centres; it is not a hypnotic; the pupils do not undergo any change. In the circulatory system small doses of solanin lessen the rapidity of the heart's action and increase the pressure of

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blood in the arteries. Toxic doses, however, cause the pulse to increase greatly, and lessen the arterial pressure, and also increase the respiration. Solanin is thrown off by the kidneys, but has no effect on the secretion of urine, neither is it a diaphoretic. As to its therapeutical action, the author has found it of great value in cases where it was necessary to reduce the irritability of the spinal cord; also in asthma, in difficulties in walking, and muscular spasms of a peripheric origin, in tremor, etc. The author usually gave 0.15 to 0.30 gram ($2^1/_2$ to $4^3/_5$ grains) daily, divided into a lesser or greater number of doses, according to the special needs of the case.

Sozoiodol.

"Sozoiodol," the name given to a new iodine compound which has been recommended by Dr. Lassar for use in the treatment of certain skin diseases, is a fresh instance of the bewildering confusion that is continually augmenting through the arbitrary and unsystematic manner in which the multitudinous new chemical competitors for medical favor are named. A first impression might naturally be that sozoiodol has some relationship with iodol; but this would be wrong, since iodol is an iodized pyrrol, whilst it is stated that sozoiodol is a benzene derivative. Looking in another direction, it has been described by more than one writer as a compound resembling ortho-oxyphenylsulphurous acid—which bears also the shorter name of sozolic acid—but with a third hydrogen of the benzine nucleus replaced by iodine. This, however, has proved to be also incorrect, as the compound is now authoritatively stated to be an acid sodium salt of "iodparaphenolsulphonic acid" (*Pharm. Zeit.*, December 24, page 734). Sozoiodol occurs as a white shining crystalline powder, which does not melt upon being heated to 200° C., but when heated sufficiently in a test tube, it is decomposed, and gives off violet iodine vapor. It is quite odorless, has a faintly acid taste, is soluble to the extent of seven per cent. in cold water, more soluble in hot water; it is also with difficulty soluble in cold alcohol, but more freely in hot.

Sodium Fluosilicate.

Sodium fluosilicate, the new antiseptic which has recently been coming into use, promises to prove an equally effective and much safer substitute for corrosive sublimate in midwifery practice. It is but slightly soluble in water, only to the extent of about two-thirds per cent. at 60° F.—that is, a pint of water will dissolve about fifty grains. It should be used in saturated solution. A few powders of fifty grains each will form but a trifling addition to the weight of the midwifery bag.

Antipyrin in Migrane.

During the last two months I have treated twenty cases of migraine; several of the patients having suffered for over ten years, and, finding all drugs useless, had become reconciled to being periodically prostrated for one or two days. In every case I ordered eight grains or antipyrin, dissolved in water or lemonade, to be repeated each half hour until cured, the patient to remain lying down. Most of the cases were quite cured by two powders, but the most obstinate yielded to three, and in no case did the antipyrin fail. A cup of warm tea sometimes seemed to help, and the only inconvenience due to the treatment was, in a few of the cases, considerable sweating.

Many of the patients can hardly credit that, instead of being utterly helpless for twenty-four hours, they can now cut short an attack in one hour.

There is another great advantage in using antipyrin, and that is that it prevents as well as cures these attacks. One lady, who cannot remember having fewer attacks than three a month, each lasting about thirty six hours, has been quite free for eight weeks, and this she attributes solely to the occasional use of an antipyrin powder.

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Resorcin in Cancer.

Resorcin has been used with excellent results in the treatment of cancerous growths on the face, in the form of an ointment containing equal quantities of resorcin and vaselin. This mixture is applied; first; an ointment containing 20 grammes of resorcin and 30 grammes of vaseline is then applied. The ointment forms eschars on the surface of the growth. These eschars fall off when pure or iodoform vaseline is applied; fleshy granulations subsequently appear, and healthy cicatrization rapidly follows.

ORIGINAL ARTICLES.

REMARKS ON A CASE OF INFANTILE HEMIPLEGIA.

BY FRANK R. FRY, A. M., M. D.,

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A prognosis of paralytic affections in infancy and childhood is often an important matter, involving the mental comfort of friends, and frequently, to their minds, the reputation of the physician in charge. Even when the diagnosis is easy and incontroverti. ble the difficulties of an honest and intelligi. ble prognosis may be many; and they are much increased, of course, when the diagno. sis is obscure. The following is a case in point.

Francis McC., æt. 13 months, large for his age, well developed and robust. On the morning of Saturday, August 27, 1887, the child arose contrary to his usual habits at 5 o'clock, played about the house as lively and apparently as well as ever for an hour or more. He then slept for four hours. The mother remarked the fact, because it was an unusually long nap for that time of day. She noticed that he was somewhat dull, but he engaged in play, amusing himself in his accustomed manner. After sleeping and awaking again he was very stupid, and she thought him to be quite ill. All day Sunday, the second day of his illness, he remained in the same stupid condition. In the evening he was taken to Dr. Y. H. Bond, who said he had a high fever. Monday morning, the third day, he had a high fever all day. Tuesday morning the fourth day, the fever was less, but he was very weak and limp. Wednesday morning, the fifth day, he was in the same weak, unconscious or semi-unconscious condition. Dr. Bond pronounced the right upper and lower extremities paralyzed. Recognizing the interesting nature of the case the doctor gave me the privilege of examinining it, and afterwards resigned the case to me.

I saw the case on Wednesday evening, the fifth day. He was lying on the bed constantly rolling his head from side to side on the pillow, and rubbing his face, pulling at his hair with his left hand, and restlessly moving the left leg. His eyes were partially closed, and his face had a peculiar expressionless appearance. If I put my hand upon his or took hold of his right hand he invariably tried to push my hand away by what appeared to be a voluntary and conscious effort, there being when he was much disturbed a low groan. No other sign of consciousness of any degree could be elicited. The pupils responded normally to light, but he could not be made to "notice" anything. The right upper and lower extremities were apparently completely paralyzed in all their segments. There was no motion in them in response to tickling, pinching, or pricking with a pin, but the opposite extremities were freely used to resist the evident annoyance that this irritation caused. The temperature was 101° F., the pulse good. The bowels and bladder were acting about normally. He had been in the same restless condition all day; apparently sleeping very little. I put the head upon an ice bag and ordered several small doses of antifebrin. Thursday, the sixth day, no fever. Otherwise the condition was much the same, except that he had slept and rested more.

Friday, the seventh day, he had rested much better. There were evidences of general improvement. More expression in the face, and I was satisfied for the first time

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that there was a paralysis of the right side of the face. No fever. On this day he made very feeble attempts to sip nourishment from a spoon. Prior to this, fluids poured into the mouth in small quantities were swallowed in an apparently involuntary manner. Now it was evident that there was some paralysis of some of the muscles of deglutition. Unless great care was taken in feeding, the patient choked, even in the upright position, portions of the fluids coming through the nose.

Saturday, the eighth day, there were evidences of rapid improvement. The patient noticed those about him, and evidently distinguished his mother from the others whenever she came near him. On this day I noticed that tickling the palm of the affected hand caused spasmodic contractions of the flexors of the hand and arm, the fingers holding for a few moments very firmly any object put into their grasp, the arm being flexed almost to a right angle. Only after an interval of some minutes could a second series of contractions be induced. This phenomenon continued to show itself for three days. after which I could elicit it no more. I failed to excite a similar spasm in the foot. But, during this time, and for at least ten days after, I imagined that the knee-jerk of the affected side was greater than the other, at least, it was as strong. In this connection I will note the fact, that the mother told me, on inquiry, that on the two days immediately prior to my seeing the case, there had occasionally been a tendency for the head to be drawn back. Dr. Bond also told me that he had observed at this time a slight rigidity of the muscles of the neck.

Sunday, the ninth day, returning motility was first noticed. He moved the toes slightly and also the fingers and forearm.

September 16, the twentieth day. He still had to be carefully fed on account of the difficulty in swallowing. He stood for a few minutes holding to a chair, but soon began to totter and finally fell towards the affected side. He used the affected hand and arm very well, but seemed to favor it by using the other when he could. Paralysis of the face was still very marked, especially when he laughed.

September 22, photographs were taken.

October 19, I detected atrophy of the muscles of the calf of the affected leg, and within a day or so after found faradic irritability diminished. On account of the facts that I was busy and that after the patient was so much better the parents were less prompt in obeying the physician, I was unable to make an appointment when I could have a satisfactory electrical examination until November 18. The result of this examination seven and one-half weeks from the date of the attack, was to find a partial degeneration in the muscles of the calf, *i. e.* faradic irritability much lowered and anodal closure contraction greater than cathodal closure contraction. The faradic irritability seemed also to be slightly lowered in some of the muscles of the thigh, but not markedly so, as in the leg. The atrophy of the calf was very apparent but not very extensive. He was then running about everywhere, controlling his locomotion very well, seldom falling. An examination of the muscles of the upper extremitiy and face showed nothing abnormal in the reaction that I could detect. I found the knee-jerk on the affected side absent or almost so. I could get it very distinctly on the sound side, but felt doubtful whether there was even the slightest response on the affected side.

Jan. 21. Made another electrical examination, and am of the opinion that the atrophy is limited to the gastrocnemius and soleus muscles.

The atrophy seems to have increased very slightly during a month's time. The temperature is very appreciably less than that of the sound foot. Also there is to some extent the characteristic livid color, and an absence of the normal elasticity of the skin, shown by the imprint of the stocking and shoe persisting much longer than on the other foot. The defect in locomotion is only slight, and at times would hardly be noticed by one not looking for it.

There is no evidence of mental impairment. When taken sick he was just beginning

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to say a few words. He does not learn to talk fast, but is increasing his vocabulary as rapidly as many normal children do at his age. His parents and the friends of the family who observe him the most—and who by the way are often the best judges in a matter of this kind—have no concern about his mental condition.

The paralysis of the face was slightly apparent until about the first of December. The parents think it can at times be slightly seen now, but I think not.

There have been three periods in the course of this case so far, when a prognosis from the physician was eagerly sought. It is hardly necessary to state them: First where the patient lay in an unconscious condition, the question was from day to day: Have you better hopes of him to-day than yesterday? The parents and friends, especially the latter, expected to see the child die without getting any better. The physician did not know whether he would or not. There were several facts, however, not all so apparent to the friends that encouraged him; the heart's action and respiration were uniformly good, there was no fever to speak of after the fifth day, the bowels and bladder were acting normally, the patient was taking enough nourishment to sustain him, and there was no evidence of an aggravation or complication of cerebral trouble. Second, when the patient was so much better as to make it apparent to all that he was recovering from the graver symptoms, the hemiplegia obtruded itself more than ever. Then the question was, will the paralysis go away; will it disappear partially or completely? At this time I made a hopeful prognosis, to the effect that the hemiplegia would largely, possibly wholly, disappear. As the subsequent history shows my prognosis was verified. Yet I made a great error. My error was in diagnosis. I believed the trouble to have been a cerebral lesion, probably intra-cerebral hemorrhage. The prolonged condition of unconsciousness, or semi-consciousness, the hemiplegic distribution of the paralysis, with a decided implication of the face, the transient spastic contractions, the exaggerated knee-jerk—or its persistence at least—in the paralyzed leg, ard all fact strongly suggesting a cerebral lesion. I allowed them to convince me. The next question, what and where was the lesion, must be answered before prognosticating. The absence of convulsions, either in the beginning of the attack or afterward; the rapid progress of the recovery when once begun; the absence of fever after the fifth day, and other considerations that I will not stop to discuss here, argued against any trouble of the meninges or cortex, as meningitis, meningeal hemorrhage, or poliencephalitis. The symptoms, if accepted as they were by me, as those of a cerebral lesion pure and simple, pointed to a unilateral, intra-cerebral one, a lesion that without being very large was situated near enough to the base of the brain to affect pretty much all of the pyramidal tract, or motor fibers of the internal capsule, of the left side, and so situated as not to cut off, but only press upon these fibers; probably in the lenticular nucleus. The ordinary lesions of this region are tumor, abscess, embolism, thrombosis; and we have good reasons for believing that the pathology of them as a whole, and the symptomatology are not essentially different in infantile life from those of adult life. In my case tumor and abscess were manifestly excluded. In a case where there are no very positive indications one way or the other, the differentiation between embolism, hemorrhage and thrombosis has to be made largely on theoretical ground. I need not rehearse these arguments here beyond briefly stating that the absence of heart trouble, of any discoverable dyscrasia, or any other fact tending to especially suggest embolism or thrombosis, together with the fact that there was to my mind, a close resemblance in my patient's condition to that of adult cerebral apoplexy, led me to believe the lesion to be a hemorrhage, situated as above indicated; a rare, but well authenticated, accident in infancy and childhood. A hemiplegia due to a lesion of the above kind, passing away as rapidly as the hemiplegia did in this case, would be very apt to eventually disappear altogether. Therefore, from my point of view at the time,

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my prognosis was a safe one to make.

Examining the case carefully, October 19, I found the muscles of the calf of the affected leg considerably atrophied, and the knee-jerk barely appreciable, if present at all. These facts and others that I need not delay to mention here, made it necessary for me to change my diagnosis entirely. I then became satisfied that it was a case of acute anterior poliomyelitis. The result of a partial electrical examination within a few days was an almost unnecessary confirmation of this diagnosis.

Could this fact have been established sooner? I am obliged to answer affirmatively. The fact that a disappearing hemiplegia of cerebral origin fades away from below upwards is almost axiomatic, the lower, then the upper extremity, and finally the face recovering. I thought I observed this in my case. For my mistake there are, I think, some extenuating circumstances:

1. The general clinical picture was so much one of apoplectic hemiplegia that my mind was strongly biased in that direction.

2. There was the paralysis of the face persisting after the leg and arm were much improved, which naturally enough, for the time being, drew my attention from the extremities, and confirmed my notion of the manner in which regression was taking place.

3. I had just been reading, in the August number of the *Journal of Mental and Nervous Diseases*, two articles that interested me very much; one by Dr. Philip Coombs Knapp on hemiplegia in childhood, and one by Dr. B. Sachs on intracerebral hemorrhage in the young, which tended to increase this bias, especially as there was a close resemblance in many respects between the clinical histories of a case reported by Dr. Sachs and mine. Then there is the remaining fact that that in children as young as this, with a widely distributed paralysis of a minor degree, it is not always an easy matter to determine what parts are most paralyzed, whether an arm or leg is most affected. It is impossible to have them perform certain voluntary movements which guide us in determining. They are not so pronouncedly right or left handed, and movements of the hand are not so well coordinated as at a later age. According to a note made at the time, my patient was walking about on the thirtieth day and using his leg about as well as his arm, if not better, so far as a casual examination would indicate. From that time I saw little of him until the date on which I discovered the atrophy.

No doubt a very pertinent question has already suggested itself to the minds of some of my hearers: why was not an electrical examination made sooner. My only explanation, a poor one, is that I felt perfectly confident of my diagnosis. Such an examination would have saved me a bad blunder. This I have to acknowledge with no small amount of chagrin, but with a measure of consolation in the fact that I have been thus forcibly taught a lesson that I thought I had already learned sufficiently well, namely, never to make a prognosis regarding a paralysis without a careful electrical examination. The faradic irritability would have been found lessened or gone, and qualitative changes in the reactions of the constant current in the lower extremity, at least early in this case. This never happens in paralysis of cerebral origin without spinal complication. Had I discovered this condition of things, my diagnosis would necessarily have been different, and in consequence my prognosis not so flattering.

Above, I have stated that there have been three periods in the history of the case thus far, when a prognosis was eagerly sought. I have shown how the physician acquitted himself at two of these times. At the present time he is asked to make a prognosis as to what is going to take place in the atrophied and partially paralyzed legs. The present condition of the leg I have described in the clinical history. In reply to questions, I have said to the friends, that I can answer nothing positively for six months or more; but that I do not expect to see the leg become relatively any larger than now. It may become smaller; there are reasons to hope that it will not; I am not sure that it will not be shorter than the other; he may limp more than he does

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now, but there are reasons for hoping that he will not. I would like to hear the prognosis of some of my hearers, and at the same time their explanation of the following facts: the persistent facial paralysis, the transitory spastic conditions and the presence of the knee-jerk; possibly exaggerated for a few days on the hemiplegic side. Besides the poliomyelitis, of which we have indisputable evidence, was there a lesion in the encephelon less permanent in character, probably affecting somewhere in their course the fibers of the pyramidal tract?

Before closing these remarks I wish to direct attention to a fact, not infrequently observed and remarked, well exemplified in this case; namely, that there is often in poliomyelitis at the onset of the attack, a widely distributed disturbance of the cerebro-spinal system, involving not only all portions of the cord, anterior and posterior, but reaching even to the cerebrum. A child may be seized with a complete hemiplegia, including the face and get well with only two or three muscles in the leg permanently affected; another like one I saw recently, had a complete paraplegia and an inability to sit erect, and recovered with the exception of a loss of power and atrophy of a few muscles of the abdomen and back. The explanation generally given is to the effect that the extensive primary disturbance is due to a wide-spread but ephemeral congestion, which as it passes away, leaves in its wake one or more small foci of inflammation, limited always, or nearly limited to the anterior cornua. Is this explanation warrantable. Is it the right one. Struempell has suggested that poliomyelitis and polioencephalitis are the result of an infection, they possibly having an identical origin. He and others have furnished clinical facts strongly corroborative of this theory. In the light of such facts is it not rational to assume that the primary wide-spread affection of the nerve centers is due to the presence in them of a characteristic *materies morbi*, which at first present in overwhelming amounts is successfully and rapidly resisted by nature; not always disappearing however, without leaving some of its peculiar depredations on the motor cells of the anterior horns?

DIDACTIC LECTURES IN MEDICAL COLLEGES.

BY C. H. HUGHES, M. D., ST. LOUIS.

Some of our exchanges have reached the final conclusion that only the clinical lecture is the proper thing in medical teaching. This is certainly a wrong position, and if put into general practice to the exclusion of the deliberate generalizations of experienced instructors would result harmfully to both patient and pupil. There are words which ought not, for the patient's own good, to be said before the patient, and deliberate generalizations are especially out of place before the sick, particularly in discussing maladies of fatal tendencies and the psychoses. We have no right to indulge in them at the bed-side or the home of the patient. The psychotherapy of many expressions we have to use in teaching is bad. Words sometimes hurt and discourage. They may weary as well as pain the patient. To teach aright we have sometimes to withdraw from the patient and discuss with deliberation and somewhat more in *extenso* than the mere clinical opportunities justify, or the occasion will permit, the relationship of diseases to each other, of similar morbid conditions in different diseases, of comparative, approximative and differential symptomatology and principles of physiology, pathology, and applied therapeutics. The patient at the clinic is an object lesson, but there are rational conclusions to be drawn from such object lessons which are not always best drawn before the patient, in the hasty and direct teaching of the clinical illustration.

As well try to teach all of the principles of warfare and the art of war during an action. The presence of the enemy inspires interest and awakens attention, and the principles of military science may be taught deliberately when the movements of the enemy do not demand immediately applied military

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science, but unless rules of action are better taught in the schools behind the army than in in front of the foe. In the presence of the enemy skilful action is demonstrated, the direct effective applications of military prac tice previously learned, and if previously applied in action so much the better. Clinical experience like field experience to the soldier, is invaluable to the physician, but he should know something of what he is to look for before he sees patients, just as the cadet should be taught how to act before being confronted with the foe.

Our graded medical schools recognize this in the grading of their preliminary studies. We think, however, that clinical teaching should begin with the first year in all schools, but to dispense with the more deliberate didactic, special, discussions and generalizations of physiological pathological and therapeutic principles would be as grave a mistake in medical teaching as to ignore principles and facts of pathology, chemistry, or physiology in these chairs, for it is not possible for the chemist to practically demonstrate every principle he teaches, or for the physiologist to do likewise,neither could the pathologist,andnone of them do it,or could do it in the time of the ordinary Americanor European curriculum, and the whole range of practical medicine cannot be taught in any one medical school,as at present recognized. Besides the object of all successful medical teaching is not alone mere knowledge of present clinical facts, it is also to teach the student how to progress in medical skill, and to enlarge on and advance upon the acquisitions and the capacity to treat disease possessed by his teachers. Progress is out of the unchangeable deductions from observation. The best educated physician is not alone he who makes the most skilful special diagnosis, but he who has so thoroughly familiarized himself with morbid processes and their successful management that he might correctly interpret and successfully manage an entirely new symptom grouping.

The deliberate deductions of clinical and all medical experience of men in middle life, or later, promulgated in the didactic course may be verified in the clinic by the close observing student and applied to diagnosis, or therapeutics, but they cannot be taught as they ought to be at the bedside or out-clinic alone.

The student sees in the clinic subjects that suggest thought, and in the lecture room he is taught how to consider deliberately those subjects upon which he is to think quickly and act decisively in the clinic. The clinic is the physician's field of action. The clinic makes the student's book profitable, and the lectures he hears away from the patient as well as those heard in his presence, and recip rocally his lectures and books makes the patient a source of profit. Any one who has tried both clinical and didactic lecturing knows how much he must condense,and abridge and omit in a clinical lecture both out of consideration of the patient's feelings and his welfare and of the pupil's time, when other cases are waiting, and how much value a previous deliberate lecture proves when the clinical illustration comes before the class at a subsequent meeting.

If clinical teaching is the only thing then, such schools as have the most clinical material regardless of lecturing and instructing talent would be the only schools for our young men contemplating the study of medicine, but it is not the largest hospitals or the largest clinics that make the best schools, but the largest minded and biggest men as generalizers and special teachers. Laennec and Tkoda, Graves, Gounod, and Jenner, McDowell, Rush, Morton and illustrious names too many for this paper, did not become immortal through such clinics.

I, big man, will make a small clinic a great school of instruction.

Our medical schools will make a grave mistake if they discard the lecturer for the clinical teacher alone and the profession will make a grave mistake if it supports alone the schools which have chiefly the large clinics to commend them.

True, the clinic can not and ought not to be dispensed with. It ought to be prominent, but the best medical teaching talent in

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this country, where medical teachers make their own living from their practice, is among a class of practitioners who could not faithfully attend a dispensary clinic at least, men whose previous hospital experience and whose present clinical experience in private practice fit them to teach in the most practical manner. To substitute for this teaching talent clinical teaching exclusively, is to put in its place the young and inexperienced teacher of practical medicine, a teacher who is not always far in advance of the pupil—an amateur kind of teaching which is not entirely the best and only thing for the learner—a clinical teaching that is purely and too restrictively descriptive—a kind of teaching that is right and proper enough if carefully done, but it should not be all of practical teaching.

If physicians were not private practitioners and lived in hospitals, or were paid by the state, then exclusive clinical instruction by the most competent men in this country might be practical. It ought certainly to have as large and complete a place in every college curriculum of study so far as practicable to secure with it the best teaching talent, and this is the most in our view that should be reasonably claimed for clinical instruction in medical schools. We must give the successful private practitioner a chance to mould the future American physician's acquirements as well as the hospital or dispensary physician, and to do this the lecture course of our colleges should keep a place for the lecturer on the principles and practice of medicine from the ranks of successful general practice.

PRACTICAL ANATOMY.—They had asked Dr. Sandblast, the eminent surgeon, to carve the festal fowl, and he stood over it with the carving-knife delicately held in the first position. "The incision, you will observe, gentlemen," he began dreamily, "commences a little to the left of the median line, and—oh, ezcuse me, Mrs. Parmalee—I thought I was in the—the *may* I help you to a little of the femur?"—*Puck.*

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SATURDAY, MARCH 3, 1888.

LIMIT OF RESPONSIBILITY IN EFFORTS TO PROLONG LIFE.

By the accumulation of statistics we are gradually bringing our knowledge of the termination of disease to approximate certainty. But so long as the human judgment is liable to err, cases will continue to occur in which the physician will be puzzled to decide when his responsibility in treating them is at an end.

In acute diseases that tend to run a definite course, the only safe plan is to hold on to the trite saying, "so long as there is life there is hope;" for we know that patients often "go down to death's door" and still recover. In a case that came under the writer's care the patient had taken two drachms of laudanum, and was narcotized for fourteen hours, three hours of which time she breathed only when an electric current was applied. Persistence was the means of saving life, in this case as it is in many others.

The divine command "Thou shalt not kill" means more than simply to prohibit the active destruction of human life; it means that a physician's responsibility ends only when he has done all that he can to prolong his patient's life.

In many chronic diseases, such as cancer of some portion of the alimentary tract, the question whether surgical interference is justifiable or not, is difficult of decision. It is often only a matter of prolonging a miserable existence for a few days or a few weeks, and

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such patients may well ask themselves the question "Is life worth living?" An object that is always to be considered in these cases is that of lessening the sufferings of the patient and making his existence more endurable. If it be decided that the chances are in favor of prolonging life, it is the duty of the surgeon to operate.

It is this principle that has induced Maydl, of Vienna, to add jejunostomy to the list of justifiable surgical operations.

In an editorial, the *N. Y. Medical Journal*, Feb. 11, speaks of this operation as follows:

To the three operations which have been resorted to, more or less *a titre d'experience*, during the past ten or fifteen years for the cure or relief of cancerous or cicatricial stenosis of the pylorus—excision, dilatation, and gastro-enterostomy—a fourth has now been formally added by Maydl, of Vienna, jejunostomy, in which a permanent fistula is established near the upper end of the jejunum, through which the individual is to receive all his food. Of its three predecessors, excision of the pylorus has been damaged almost beyond repair by its results, for few of us demand so much as a certain prominent surgeon who, when asked for his opinion of the operation, said that he had not yet formed one, but was waiting for more experience—he had performed it only fourteen times, and all his patients had died. Forcible dilatation of the pylorus is applicable only to cicatricial stenosis, holds out a prospect of little more than temporary relief, and has also a high death-rate. Gastro-enterostomy, in which a permanent communication is established between the small intestine and the stomach through its anterior wall, is an operation requiring not only exceptional skill and experience for its proper execution, but also so much time, from two to three hours, that the enfeebled patient is thereby exposed to serious danger. For jejunostomy it is alleged that it is of easy, rapid execution and accompanied by but slight risk of peritonitis; that in cancer of the stomach it affords a prolongation of the period of survival and a reduction of the discomfort or suffering approximately equal to those obtained by successful pylorectomy; that in cicatricial stenoses it is less dangerous and has a more durable result than forcible dilatation; and that it is less dangerous than gastro-enterostomy, but inferior to it in that it substitutes alimentation through a fistula for feeding by the mouth.

Maydl has done the operation twice, in April and June, 1887. His first patient survived seven weeks, during the first five of which his nutrition was satisfactory, but he lost flesh rapidly during the last two; the second patient died nine days after the operation, with all the signs of insufficient nourishment, and it was discovered at the autopsy that the opening had been made at a much lower point in the intestine than had been intended, about midway between the duodenum and the cecum. Both patients had extensive cancer of the stomach, which was adherent in the first to the anterior abdominal wall and in the second to the transverse colon, so that neither excision nor gastro-enterostomy was possible.

It can hardly be contended that this record proves more than that the operation can be done without much risk of causing death by shock or peritonitis. Only one patient survived long enough to furnish any means of judging whether or not food introduced solely through such a fistula can maintain life for any length of time; he improved until the fifth week, then began to lose flesh rapidly, and soon died, and it remains uncertain whether his failure was due to the progress of the disease or to the way in which he was fed. Practically, then, the question as to the possibility of giving sufficient food in this manner remains as it was before any of the operations had been done. Experiments upon animals have shown that they can be nourished thus, and the well-known case of traumatic intestinal fistula reported a few years ago by Busch, shows that an otherwise healthy human adult can also. This patient was a woman who had been gored by a bull. Six weeks after the accident she was brought to the hospital in a state of extreme emaciation, with an intestinal fistula situated mid-

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way between the umbilicus and the pubes out of which the contents of the bowels escaped freely. The appearance of the mucous membrane, as seen through the opening, indicated that the wound was in the upper part of the small intestine, and this opinion was strengthened by other features of the case. Busch introduced food into the lower segment of the intestine through the opening, and the patient soon regained her former strength and weight. Jejunostomy will be applicable at least in cases not admitting of other operative treatment for the diminution of suffering, and, perhaps even for the indefinite prolongation of life. It will also be an operation which the comparatively inexperienced but strictly antiseptic surgeon can confidently undertake, and it may also serve in some cases as a sort of operative lightning-rod which will afford a means for the relatively harmless discharge of the *furor secandi.*

EDITORIAL PARAGRAPHS.

BY DR. I N LOVE.

I have for the past month been advising the injection of a teaspoonful of glycerine into the rectum as a means of securing a prompt evacuation of the same, in all classes and conditions of patients from infancy to adult life, led thereto by an article in the *British Medical Journal* of December 24 1887, from the pen of Dr. Julius Althaus.

He drew attention to the fact that Dr. Oidtmann, a Dutch physician, first used glycerine as an injection in constipation, advertising it as a secret remedy.

Anacker used some of the advertised remedy, found it efficient, analyzed it and discovered it to be simple glycerine plus a coloring matter: minus the latter it was equally efficient. Althaus upon reading Anacker's paper lost no time in giving the proceeding a trial.

His success was uniform. The explanation given by Anacker is that glycerine having a great affinity for water, when brought into contact with the mucous membrane of the rectum, withdraws water from it, causing hyperemia and irritation of its sentient nerves, leading reflexly to active peristlatic contraction, ending in defecation. The greater the accumulation of feces, the more pronounced the effect. No discomfort, no pain, possibly a little throbbing in the rectum, the action takes place *cito, tate et jucunde.*

I have recommended this procedure from ten to twenty times daily, for the past month where the indications suggested a prompt evacuation of the bowels, and have yet to receive the report of a single failure. The teaspoonful of glycerine injected into the bowel by means of a small glass or hard rubber syringe was more prompt and in every way more satisfactory and convenient than the use of a quart of soap suds.

* * *

The *Post-Dispatch* of Sunday Feb. 19,1888, contains a detailed confession over his own signature of Hugh M. Brooks, alias Maxwell, (known all over the world as the murderer of Preller his friend) written beneath the shadow of the scaffold.

After reading the same, one can hardly refrain from feeling that possibly the poor addle brained crank may have killed his friend by accident rather than design. It seems impossible to believe that a little five foot man, weighing hardly a hundred pounds emasculated by excessive cigarette smoking could forcibly administer enough chloroform and a hypodermic injection of morphine, to a man six feet tall and weighing one hundred and seventy pounds or more, to the point of killing him.

His claim that he recklessly administered the chloroform to his victim with his consent, in order that he might introduce a catheter for a urethral stricture seems plausible.

Not forgetting poor Preller, whose person and character have suffered so much at the hands of the glib little adventurer, masquerading as a doctor, I cannot repress a sentiment of sympathy for him and his loving and loyal old father, who has spent all his hard earned money, and mortgaged his old age in making three trips across the ocean, and unceasing efforts to save his boy; and I find

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myself indulging the hope that Governor Morehouse may find himself justified in giving the condemned the benefit of doubt by remitting his sentence to imprisonment for life.

The following presentment of his feelings after the fatal accident (?) is forcibly and dramatically put to say the least.

"Taking a small curved surgical scissors out of my case, I cut off his shirt and undershirt, cutting the garments as a surgeon would have done so as to expose the largest possible surface of the skin to the action of the atmosphere. The cut garments show that I did this. Then I rubbed him vigorously and next took a wet towel and slapped his breast with it. I put forth every effort to save him. I worked strenuously and unceasingly for more than three-quarters of an hour, plying that towel and shaking and rubbing him. Every muscle trembled with excitement and exertion. I was in a fever of bewilderment. My emotions overwhelmed my judgement. I sank exhausted and frightened in a chair beside the bed, but not until my friend had been long ago dead. Why did I not call for help? My God! I wish I had. Why did I not pull open the door and rush into the corridor at a moment and proclaim myself innocent? Could I not have done so? Had my purpose been murder as a preface to robbery could I not have secured my booty and called in the hotel people to look at my friend and tell them that his death was the result of an accident? Had I been cool and calculating, in possession of my faculties and with a campaign of murder and robbery already carefully devised, would it not have been perfectly safe for me to have made away with the money first and then come boldly forward with my excuse for and explanation of the death? I did not call for help. I did not offer any excuse. And why? Not because I knew I had not planned a murder and robbery—for thought of such things was very remote from my mind—not because I was innocent of any crime, and felt my innocence, but because I was in a delirium of excitement,and gave more immediate thought to the loss of my friend than I did to my danger. I cannot explain my condition or describe it. My brain was burning, my every nerve throbbing, my senses were in a whirl of grief and worry; I knew not what I did. I sat there and in despair contemplated the lifeless figure of my friend. Would to God somebody had come in and roused me from my horror-stricken condition. Would to God that man Ross, who said he was in the adjoining room, and heard noises had burst in the door and come to my rescue. But nobody came, and with senses paralyzed and my own life seemingly wrecked in the wreck of my friend's I kept my seat, fairly enchanted with horror.

They talk of plans. Merciful Savior, where were they then? Plans! Plans! Any plan would have saved and set me right, but I had none, not ever the feeblest plan that the most ignorant murderer might have devised. I was at the mercy of the circumstances and of my feelings, and when I awoke to a keen sense of my position, the ideas of America which I had imbibed from Dickens rose before me like warning shadows, and stood between me and the door through which I might have walked that afternoon into the pure, bright light of innocence. Analyze my psychical condition if you can, with sorrow and its attending emotions weighing down upon me at one side and the grim specter of mob law, as my ill-trained fancy painted it, rising menacingly at the other. As I have said a hundred times, I did not know that an accused person could testify in his own behalf in this country. I had a deep-founded conception that a man who took another's life was dealt with and disposed of very summarily and that Judge Lynch was the principal magistrate of the West. Being a foreigner who had no special reason to look into the laws and no special object in doing so, my ignorance on this point was nothing extraordinary. With the fear of swift and certain punishment for what I had done staring me in the face and with my judgment knocked to pieces by the severe shock of my friend's death, was it any wonder that I was undecided and failed to do what I now see I should have done? One of

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my first impulses, when I came to myself, had been to call in the hotel people, but dread of being suspected and arrested drove the thought from my mind, and before I knew what I was doing and without considering by what mental process I arrived at the determination, I had selected concealment and flight as the best means to safety. I suppose that untrained instinct within us all—the instinct of self-preservation—prompted and drove me to this foolish step."

The quotation is a long one and my only reason for presenting it, is its unusual interest and the feeling that the psychological picture is worthy of the pages of a medical journal.

As I consider the subject matter of the letter, I am more and more impressed with the fact that a master hand either directed or doctored it, and I fancy that the fine Italian hand of the gentleman to whom it was addressed, the *Post-Dispatch* Reporter, appears between the lines—however this has no bearing upon the facts involved.

* * *

It is doubtful whether the importance of common salt as an adjuvant in the matter of nourishment is fully appreciated at all times. It is well known by stock-men that animals are much more greedy for food after receiving a proper quantity of salt daily, the food not only gains in palatableness, but also in nutrition. Salt stimulates the desire for water and is therefore a stimulator of the glandular system. It is antiseptic, and for this reason it is well to order it freely in fermentative dyspepsia. I question whether due regard is paid to the value of this simple agent as an addition to the food of infants.

How many times have we seen the little ones at table greedily lick the salt holder when it accidently comes within their reach, there is something more than mere accident in their childish satisfaction so markedly manifested.

Salt is valuable in that it is a stimulator of appetite, digestion, secretion, excretion, osmosis and tissue metamorphosis.

* * *

I have often thought it strange that the learned and philosophical Socrates—classic history tells us he was twice married—shou not have been affected by his first matrim nial effort to the extent of being disgust with benedictine life. One would have thoug that he would have become so "shrew by many years association with a "shrew" not to have been taken in a second time.

In spite of the horrors of his life with Xa tippe he seems not to have developed a xantipathy to uxorious associations.

However he probably acted upon the theo that lightning never strikes twice in t same place.

* * *

In the *Boston Medical and Surgical Jou nal* of Feb. 16, appears a paper upon "Pr tracted Gestation" from Dr. Jno. G. Blak He cites two of his own cases where the co finement was deferred in one case four week and the other twenty-nine days over the a pointed time.

Dr. Simpson, England, attended four cas where the terms were prolonged respectivel 313, 319, 332, and 336 days.

Meigs claims to have had a case where 42 days elapsed between conception and labo Bartholin reports a case delivered in the si teenth month.

These with other cases on record are inte esting, not only from a physiological stan point, but from a medico-legal and soci point of view as well.

A widow giving birth to a child year after the death of her husband, mig well be asked to be delivered from the b den of being the exception which proves rule. The problem would present many turesque peculiarities to the Miss Grundy Society.

* * *

If it be true, as Dr. Oliver Wendell Hol suggested, that there existsan *idioticarea* in human mind, corresponding to the blind s in the human retina, this may account for fact that many a person who is not a foo nevertheless found on occasion to act one. An effort should constantly be made keep ones wits from wandering toward

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barren intellectual domain, but in spite of every thing they sometimes get there, and linger in the neighborhood.

* * *

I am under obligation to Dr. Paul Paquin, State Veterinarian at Columbia, Mo., and Dr. Geo. Homan, Secretary State Board of Health for a goodly supply of bovine vaccine virus. By the establishment of this vaccine department of the Agricultural College a benefit is bestowed upon the medical profession and humanity, I have found the virus uniformly reliable.

I am not so informed but believe that any physician will be promptly supplied with this virus by application, without charge.

Information has just been received to the effect that quite a number of cases of small pox are now in the neighborhood of Kirksville, Adair Co. Mo.

St. Louis has been unusually free from infection for two or three years past (no case having occurred for two years I believe) but one case is now at the Small-Pox Hospital.

* * *

Professor Germain See of Paris, has charge of a patient (in a family of which I am the family physician) suffering with asthma. The chief features of his treatment were iodide of potassium, and antipyrine at night to control paroxysms, and secure rest. In a letter just received he says—"I took up the iodide of potasium in the treatment of asthma eight years ago, and now all practitioners find it indispensable. I may even add *is the only real remedy*. If you do not like this drug as I prescribe it for you, you must give up the case, and soon indeed any relief whatever. Get the following formula prepared in St. Louis and take as directed: viz.

Syrup balsom tolu	500	grammes
Alcohol tinct. belladona	10	"
Iodide potassium	25	"

M. Sig. One large spoonful three times daily. He insisted upon the antipyrine being sent from Wurtz in Paris.

* * *

To aid in the securement of easy and reliable book keeping on the part of doctors, many visiting lists and ledgers have been devised, all requiring signs and symbols in order to accomplish the requisite compactness necessary to enable the book to be carried in the "inside pocket" of the owner, forgetting the fact that these signs and symbols would not "pass current" in the courts in case of litigation. The "*Medical World*" has presented us with the most convenient and in every way the ideal monthly account book for the busy doctor. The book is small and most ingeniously arranged. After long years experience, and a trial of all the books of like character in the market, I am convinced my dear Taylor that you have the best.

The visiting list along with the ledger I propose to use to the exclusion of all others, and one great advantage along with its superiority is its greater cheapness, and the fact that the pages are plain and easily understood and he who runs may read. He that seeketh a "sign" will find none, a little child even could understand the presentment of an account on the *Medical World* visiting list.

* * *

In this issue of the REVIEW appears another excellent paper from the pen of Dr Arch. Dixon, of Henderson, Ky., Ex President of the Mississippi Valley Medical Association. Dr. Dixon is one of the leading workers of Kentucky, a son of Ex Governor Arch. Dixon and unquestionably a noble son of a worthy sire. The subject of the doctor's paper "Puerperal Tetanus" is an interesting one, and in a private letter he indicates that he trusts that it may draw out some observations from the readers of the REVIEW upon the topic treated. Our columns are open for further reports.

* * *

When at the City Hospital during the past week, I observed a surgical case of decided interest. A victim of a stab, the wound penetrating the abdominal parietes in the neighborhood of the left hypochondriac region, the Acting Resident Surgeon Dr. Bransford Lewis performed an exploratory laparotomy, tied a bleeding vessel, closed a wound involving the outer layers of the stomach wall by

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sutures, all under severe antiseptic precaution. The temperature never rose above 100°,a complete recovery ensued. Had not this prompt, skilful and intellegent course been pursued more than likely the man would have died of internal hemorrhage or peritonitis.

* * *

By the courtesy of the Directors of the Mercantile Club (instigated by Dr. Geo. Homan a member of the Board) the St. Louis Medical Society will until further notice meet in the ground floor parlor of the elegant Club House, 708 Locust St. The Mercantile Club thus gives additional evidence of its public spirit in catering to the desires of gentlemen interested in the general good of the community.

The medical society hall in the Polytechnic Building is undergoing repairs. In fact it has been undergoing repairs almost constantly for the past year. The wear and tear upon the hall is very great, possibly owing to the fact that the Public School Board meet regularly there and the "Scrapping Matches" of the unruly members endanger their surroundings more than themselves.

* * *

By the way it would be a good idea for the Round Table Club of the medical society to individually (or at least a part of it) secure membership in the Mercantile Club. Its close proximity to the home of the society would render it a good place for the social element to convene after adjournment. The "Chĕf"of this club is reputed to be the best in St.Louis, or in fact anywhere outside of Delmonico's. And this is a matter of no small importance to the epicures of the "Round Table Club" of the St. Louis Medical Society. What think you brothers, Bond, Lutz, Dalton, Mooney, Meisenbach, Brokaw, Porter, Broome, *et al*?

THE CYSTOSCOPE.—The success attained in bringing the sense of sight to our aid in determining the nature of abnormal conditions located in the various organs of the body, is one of the marked features in the rapid advance made in medical science. The introduction of the ophthalmoscope revolutionized the science of ophthalmology. By means of the auroscope, a perforation of the drum membrane or the existence of a polypus in the auditory canal is easily detected.

The rhinoscope skillfuly managed brings the post-nasal cavity as plainly into view as does the nasal speculum the anterior nares. By means of the laryngoscope not only can we examine the various parts of the larynx, but in many cases the trachea is clearly visible as far down as its bifurcation.

Dr. Nitze and Mr. Leiter, of Vienna, have each added to these achievements a practical method of illuminating the bladder, so that its inner surface can be plainly seen. The *British Medical Journal* of Feb. 4, contains an abstract of a demonstration of the cystoscopes, invented by Dr. Nitze and Mr. Leiter, a reference to which was made in the REVIEW of Feb. 18. The demonstration was given by E. Hurry Fenwick, F.R.C.S., before the London Medical Society, January 23, 1888, a part of which we give as follows.

The three essentials of the construction of both Nitze's and Leiter's cystoscopes are practically identical: (1) A catheter of No. 22 gauge (French) in size, with a small elbow near its end. (2) A terminally placed incandescent electric lamp, (Edison's "Mignon"). (3) A window, closed by a prism, placed near the bend of the elbow, to refract the entering rays so that they pass along the tube to the observer's eye. The battery used is portable, having from four to six cells, with carbon zinc plates and chrom-sulphuric acid fluid.

The Leiter instrument is more durable, and so constructed that if a part is broken it can be replaced at once, whereas that of Nitze if broken must be returned to the manufacturer for repairs.

Certain objections might reasonably be made to the use of the cystoscope.

1. Breakage of the Lamp.—It might be supposed that the mere contact of the urine with the lamp would crack the glass. Such an accident as that would be fatal to the use of the instrument; but happily it is rendered impossible by the closure of the aperture in

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the hood by means of a plate of rock crystal two millimetres thick. These lamps have burnt for thirty hours under water without a flaw. I have tested the plates with over-anxious roughness, and have only succeeded in cracking one by forcible finger and thumb pressure. Such violence could never be encountered in the bladder.

2. Burning of the Mucous Membrane.—The cap or hood, with its contained lamp, becomes very hot if exposed to the air, but when it is under water the heat is rapidly absorbed and the cap remains quite cool. This is exactly what happens in the bladder, for the urine carries off the heat of the lamp as fast as it is formed. When I first began to use the instrument my patients complained of a subsequent burning sensation, which I attributed correctly to awkward manipulation of the end, in keeping the lamp resting on or pressed against the bladder wall. "They may be burnt for an hour in a male bladder, holding seven ounces of fluid, without perceptibly raising the general temperature" (Brenner).

Capabilities.—By means of the electric cystoscope every part of the vesical wall can be examined in as brilliantly illuminated a condition as if it were viewed in direct sunlight.

As an example of the power of the light, I quote from my notes of a case of right renal hematuria which I examined with the cystoscope. "The trigone and base of the bladder appear of straw or sandy color; and not, as one would suppose, of a rosy or reddish hue. The slit-like orifices of the ureters are clearly visible, and a drop of blood would be apparent if it were entering the bladder. Here and there, this sandy-shore-like surface is relieved by a maroon colored vessel which courses arborescently across the field; the entire picture reminds one of the optic disc."

What are the deficiencies of the electric cystoscope?

1. It cannot be used in irregularly enlarged or carcinomatous prostatic cases.

2. It is difficult to work in contracted bladders.

3. Hematurial urine causes a red fog to appear around the light and obscures everything.

4. Stricture of the urethra arrests its introduction until dilatation has been effected.

Rules and Directions for the use of the Cystoscope.—Place the patient on his back with his legs bare. Cocainize the urethra and bladder, or anesthetize the patient. Make certain that the bladder contains at least six fluid ounces of clear urine; a greater quantity is better. If the urine be bloody, wash out the bladder, and substitute clear water for the murky medium. Regulate the light of the lamp so as not to fuse the filament with an unnecessarily strong current. Do not start the light until the lamp and elbow are well within the bladder. Let the manipulation be gentle and purposive. Do not keep the cap in contact with the wall. Let the instrument remain for half a minute after the current has been shut off, in order to cool the hood completely before you withdraw.

That the cystoscope of either maker will become rapidly popular, and be largely employed in the diagnosis of urinary diseases, may be argued from the simplicity, safety, and success of the instrument; but it is indeed difficult to predict accurately its future rank. It will obviously replace the large collection of instruments or procedures which attempt the diagnosis of the source of hematuria and pyuria; for the ureteral orifices are clearly exposed to view. Its use will tend to limit the size and number of vesical papillomata by enabling us to detect and remove these and other growths in their very infancy. It will, moreover, afford us a clearer insight into the physiological and pathological conditions of the vesical mucous membrane, and allow us to control our clinical observations and speculations by direct visual research.

Massage During Parturition.—In parturition, we obtain from massage four results. We excite the contractions of the uterus, rectify vicious positions, favor delivery by the process known as "expression," and arrest hemorrhage.—*Dujardin-Beaumetz.*

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CORRESPONDENCE.

PARIS LETTER.

PARIS, Feb. 15, 1888.

M. Bucquoy has treated in his wards the following interesting case of chronic farcy.

The patient was a man of 46, who had suffered from abscesses in the muscles and areolar tissues in different parts of the body during several months. The first of these abscesses proceeded from a suppurating wound in the hand, accompanied by angioleucitis and phlegmonous adenitis of the arm-pit. The patient grew thin, lost strength and was feverish. Fresh abscesses appeared, the general condition became serious; the patient succumbed. At the necropsy a number of farcinous abscesses were detected; there were two abscesses in the cranial hollow, one in the meninges and another in the encephalon; the respiratory mucous membrane which occupied the base of the tongue and glosso epiglottic folds was ulcerated; this last symptom is regarded by veterinary surgeons as characteristic of glanders. The patient had driven a horse belonging to a stable in which several cases of glanders had occurred. While the patient was alive Dr. Bucquoy made inoculations and cultivations with the virus. He found that asses resisted the action of this virus. M. Bucquoy regards this case as one of glanders transmitted by a horse to a human being. The farcinous character of the affection and its masked appearance were probably due to the quality of the virus, its mode of transmission, or the medium in which it developed. This case shows that farcy may be erroneously confounded with glanders.

At a recent meeting of the surgical society M. Berger communicated a note of M. Poncet concerning two cases of loss of tissue in which the author employed the autoplastic method. The first case was that of a girl of 15, who had suffered for six years from a loss of substance from 6 to 7 centimeters deep, in a large cicatrix at the level of the external malleolus. M. Poncet removed a fragment of flesh from the corresponding gluteal region, and placed it on the part where the loss of substance had occurred; this part was previously stimulated. Suture was then effected. The leg was maintained in flexion. On the ninth day half the pedicle was cut; on the thirteenth day it was entirely severed; the flesh was healthy. The wound healed slowly, but recovery ensued. Eight days after the pedicle was cut the piece of flesh received the impression produced by contact.

In the second case the patient was a young man who presented a loss of tissue resulting from a vast eschar at the level of the olecranon process. The ulcerated surface was removed; a piece of flesh removed from the side of the trunk (to which it remained attached by a pedicle) was applied. The pedicle was half severed on the ninth day, and completely severed on the thirteenth day. The flesh grew, but a sphacelated spot remained. This small loss of substance was remedied by epidermic graftings. Insensibility in the piece of flesh applied, continued during six months.

Dr. E. Saget, of Marseilles, has communicated to the Biological Society a note on the successful use of antipyrin to calm the pains of labor. The author was called to attend upon a young lady who had already had several miscarriages, and who was taken with the pains of labor after about five months' pregnancy. The pains, very severe, resisted laudanized injections administered at intervals during 48 hours. On the third day, the pains continuing almost without intermission and becoming sometimes insupportable, the doctor remembering the recent communications of Dr. Chouppe to the Societe de Biologie (July 16, and Nov. 19, 1887) prescribed an injection with antipyrin (2 grammes per 100 gr. of water). The pains diminished a little, but still persisted with some violence. One hour later another similar injection was administered and a quarter of an hour later the pains diminished most remarkably. The uterine contractions occurred every eight or ten minutes, with slight but supportable pain; the labor continued regularly in this manner

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for three hours when the fetus was expelled; the placenta followed shortly. The patient had no after pains, and her convalescence proceeded normally. Dr. Netter calls attention to the fact that although the use of antipyrin diminished the pains, not only the uterine contractions retained all their force, but the exhaustion caused by excessive pain having ceased, each contraction was more effective. The quantity of antipyrin emyloyed was moderate, and it is possible that it might be administered in larger doses without inconvenience and with more decided effect.

At the Academie de Medecine Dr. Vidal lately showed a new kind of speculum with movable valves, invented by M. Ch. Dubois. This instrument is composed of a piece which is shaped to receive valves of different sizes. The valves are fixed by means of a screw. When the two valves are placed on this piece, the instrument is complete. By employing three sets of valves of different sizes, three different speculums are obtained, namely, a speculum for virgins, a speculum for operations and a speculum for examination.

M. Dubois has, moreover, constructed a handle which receives each of the valves to which it is fixed by a screw. By this means the instrument may be employed as Sims' valves. The advantages of this instrument may be summed up as follows. It may be thoroughly cleaned. It comprises three specula of different sizes, and six Sims' valves. The cost of the whole instrument is less than that of the different instruments which it substitutes.

M. Gripouilleau has invented an artificial arm, costing only 40 francs, which will allow the wearer to dig, load and wheel a barrow, sow, etc. This arm, which is applied to the shoulder where the member has been amputated is made of wood, zinc and sheet iron. It will prove of immense service to laborers who have lost an arm.

The laicization of the Paris Hospitals will shortly be completed. The religious staff at the Charite was dismissed a few days ago. The laicization of the Hotel Dieu and the Hopital St. Louis will follow in the course of the year.

The laicization of the hospitals was begun in 1878 with the Ho pital Laennec. Since that time the Administration of the Assistance Publique has organized a training school for nurses at the Hopital de la Pitie. The nurses are taken from here to substitute the religious nurses whenever a fresh hospital is laicized. The post of superintendent of a ward is only confided to those who have obtained a certificate at the examinations proving them competent to undertake such an office.

The contract made between the Administration of the Assistance Publique and the religious orders which have hitherto supplied the hospital nurses, gave the option to either side to annul the engagement if it appeared advisable.

An epidemic of tetanic nature with contractions of the nucha, has appeared at the military hospital at Metz. Several deaths have occurred. The physicians are at a loss to know how to treat this affection.

Dr. Potain, professor at the Paris Faculte de Medecine, and Dr. Dumesnil, physician at the Vincennes Asylum, have been named officers of the Legion of Honor.

Dr. Quinquaud has been named Knight of the Legion of Honor.

The Sanitary Commission of the Municipal Council of Vienna proposes engaging two doctors for each *arrondissement* to render medical assistance during the night time. Before deciding upon this measure, the Commission intend ascertaining in what cases and under what circumstances medical men refuse to give their services during the night time.

A committee, composed of 67 of the most eminent scientific men in Holland have decided to found a scientific institution under the patronage of Professor Donders. This institution will bear the name of the distinguished professor, who has for many years been director of the Laboratory of Physiology at the University of Utrecht.

A serious epidemic has appeared at Mar-

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seilles, causing great destruction among the pigs in this arrondissement. More than 30,000 animals succumbed within one month.

In a clinical lecture at the Hopital St. Louis, Prof. Fournier treated what appears to be a simple question, but which, in truth, as he pointed out, is one but slightly studied and therefore imperfectly known. In hospital wards, where only the more serious forms of disease are treated, the physician has but little opportunity of observing acne. It is in private practice that he is obliged to study the treatment of this affection which the most energetic remedies frequently fail in curing. Owing to its disastrous effects on the skin of the face, and the permanent disfigurement which results, acne frequently produces a serious effect upon the organism and determines intense mental depression, disturbed nutrition, anemia, etc. M. Fournier cited the case of a young lady of 23, who had suffered from acne during six or seven years. Finding there was no hope of recovery she decided to retire into a convent. This is only one among many instances of the kind.

Acne is constituted by inflammation of the sebaceous glands and the adjoining hair follicles. This inflammation is manifested by hyperemia of the peripheral capillary vessels, a collection of serum and a considerable collection of lymphatic cells in the glands and follicles. Redness and swelling result; the papula of acne appears. It disappears by absorption, and more frequently by suppuration, in which case the pus collects in a papulose pustule at the top of the papula. If the inflammation is moderate it may be cured. When it is serious, the glands and follicles become disorganized and a small purulent cavern is formed, which subsequently becomes cicatrized. This inflammation is termed suppurating sebaceous adenitis and pileous folliculitis. There are four varieties of acne pustules, viz., papulose, pustular, indurated and knotty or sub-cutaneous acne.

Papulose acne is constituted by a reddish dry pimple, the size of a pin's head, on the surface of the skin. The pustular pimple is a development of the papulose pimple; it is surmounted by a small collection of pus.

The indurated pimple is merely an exaggerated form of the pustular pimple. The knotty or subcutaneous pimple has a distinct character. It forms a hard lump under the skin, which gradually becomes soft. When pricked the pus exudes through the opening of the secreting canal of the sebaceous gland.

The acne eruption is usually composed of at least two of these four varieties. There is a form of acne which is unaccompanied by inflammation, namely comedones acne or maggot pimple. This form is manifested by little black specks dispersed over the skin which covers the secreting canals of the sebaceous glands.

The varieties of acne eruption are transitory; the eruption itself lasts several years, and is therefore a combination of the different varieties at different stages. This affection is unaccompanied by morbid phenomena of any kind; it is attended by no danger. It is, nevertheless, a most trying affliction. It always appears on the face and shoulders, and in some cases on the chest, and occurs during the best years of youth, from the age of puberty to the age of 25 or 30, and sometimes longer. Energetic and persevering treatment should be employed, but even this frequently remains ineffectual in modifying the eruption. There are three forms of this affection. The first is insignificant. The second, characterized by the papulose, papulo pustular, indurated, and sometimes by the subcutaneous pimple, is more serious. The third or confluent form is disastrous in its effects. The skin is red, inflamed and riddled with pimples. The unfortunate patients present a most repulsive appearance. It is easy to understand that nervous disturbance caused by a similar affliction may result in general debility.

At the meeting of the Societe de Biologie of December 17, 1887, Dr. Leven read a paper on the relation between the nervous system and nutrition.

Dr. Leven assumes that disorders of the nervous centers cause nutriment to deviate

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from the duty it has to fulfil in the organism, transforms it all into fat, and in this manner the albuminoid substances become fat in the economy; the hydro-carbonated substances are also changed into fat when the nervous system is affected. So that obesity is the result only of functional disturbance of the nervous centers.

When by a proper treatment, regimen and general hygiene, the nervous system is set right again, the above phenomena cease, the hydro-carbonated substances change into water and carbonic acid and the obesity disappears.

Disturbance of the nervous system may similarly cause emaciation.

Dr. Leven's treatment consists in repose, meat twice or three times a week only, and feculents, eggs, milk and coffee, ad libitum. He proscribes gymnastics, violent exercise and everything physical and moral likely to perpetuate the irritation of the nervous system.

Dr. Leven cites three cases in which this treatment was eminently successful in curing obesity.

The patients diminished by 30, 45 and 52 pounds; and what is peculiar is that the diminution in weight does not exceed a certain degree, and ceases as soon as the nervous system is cured.

The author concludes by saying that all empirical treatment (Banting and others) are injurious and even dangerous, and that the only rational treatment is repose of the nervous system and avoidance of all cause of irritation, physical and moral.

M. Lafont, by his recent investigations has gathered the following particulars concerning the generalized anesthetizing action of cocaine. Placed in contact with certain parts of the body, this substance will produce anesthesia which extends to the whole organism. This generalized anesthesia is as complete as that obtained by inhalations of chloroform. This generalized action of cocaine is best obtained when the substance is applied to the pharyngeal mucous membrane.

M. Lafont affirms that this general anesthesia does not modify the nerve trunks, but rather exercises a stimulating action in this direction. The peripheral parts on the contrary are rendered insensible by the action of cocaine.

M. Lavaux, house surgeon at the Pitie hospital has invented a sound with double canal, to be employed in intra-uterine injections. This instrument is merely a modification of M. Lavaux's sound with double current for the continual cleansing of the urethra. Its terminal extremity is similar to that of a hysterometer. It is three and two thirds millimeters in diameter, and has four grooves through which the liquid is able to return. The rod is one and two third millimeters in diameter, and is 30 centimeters long. This sound is made of fine silver, and cannot become oxidized; it may be made to assume any form by means of a mould. It acts in the same manner as the urethral sound (*Arch. de Med.*, May, 1887). The pressure required is less than 10 gr. It should be introduced by means of the speculum. M. Maygrier has employed this instrument successfully in a case of septicemia, consecutive to abortion. M. Lavaux has employed it in two cases of endometritis with excellent results. It may be employed to cleanse the anterior urethra if its shape is modified by means of a mould.

At a recent meeting of the Conseil d'hygiene, M. Proust made a report on the system of preserving milk with carbonate of soda. He considers that this method should be prohibited. Carbonate of soda prevents the milk from turning sour, but produces a sodium lactate which is a purgative and causes diarrhea in infants.

M. Herard has been elected president of the Academy de Medecine in M. Sappey's place for 1888.

M. Maurice Perrin is elected vice-president, and M. Prons annual secretary of the Academy.

M. Charcot and M. Panas were elected members in the place of the retiring members.

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SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Feb. 18, 1888, the president YOUNG H. BOND, M. D., in the chair. J. B. PRICHARD, Secretary.

DR. DORSETT.—The patient from whom this specimen was taken, was 52 years of age and married, she had been ill more than a year. She had been treated for rheumatism, heart disease and other affections by prominent physicians of the city. They did not know what was ailing her. I learned these facts from her relations. She was transferred from the City Hospital Jan. 28. She was then in such a condition that it was impossible to get a definite history. She was partially delirious, very weak, much emaciated, and had a distinct cardiac bruit. No pain was elicited by pressure over the stomach or bowels, and she simply died from anemia, as we supposed at that time. I made a postmortem with the expectation of finding something more abnormal about the heart than there was. In fact there was hardiy anything to account for her condition. Accidentally opening the cavity of the abdomen, I found this hard mass, involving the pyloric portion of the stomach; the stomach was very greatly distended—being, as you will see, a good deal larger than normal. Upon turning it over after removing it, I found this opening. It is a little beyond the pyloric orifice and in the first portion of the duodenum, and I am inclined to think it is a postmortem lesion. This specimen has not been examined microscopically, but I think all agree with me that it is cancer. The specimen is interesting from the fact that such a large portion of the stomach is involved and there is so little history of cancer; in fact there were no symptoms at all, except probably the cachexia; there was not exactly a cancerous cachexia, but she was very pale and emaciated.

DR. BOND.—Was there any peritonitis?

DR. DORSETT.—No sir; There were no symptoms of peritonitis and no adhesions. She vomited only once and that was an hour or two before she died.

DR. T. F. PREWITT.—It is certainly very unusual to have a cancer of the stomach with neither pain nor vomiting. Undoubtedly the fact that there was no vomiting was due to the size of the opening through the pyloric extremity, the lumen was sufficiently large to allow the food to pass through, otherwise there would have been no vomiting, although there is a dilatation of the stomach, indicating that there was an obstruction. Every cancer is not painful, but the majority of them are. It seems almost incredible that where there was so much cancerous deposit there should be no vomiting. Even if the obstruction be not such as to block the opening, the reflex disturbance usually produces vomiting. We can not always make a diagnosis of cancer, even where the symptoms are well defined, for all these symptoms may originate from chronic catarrh of the stomach. In this case, I am not surprised that it was overlooked, since there were no symptoms which pointed directly to the existence of cancer, and if there had been, unless the doctor could have determined the existence of a tumor, he could not have said there was a cancer. A positive diagnosis can not be made unless the tumor can be felt. Many cases that have been supposed to be cancer, have proved later to be something else. I think the opening which we find there is the result of post-mortem tearing, it could not possibly have existed without setting up peritonitis. A close examination will show that the tissues have been torn. The cancer would have resulted, had the patient lived long enough, in a perforation, but there was no actual perforation at the time of her death, in my opinion. I do not know whether the doctor discovered this tumor before death.

DR. DORSETT.—I stated that there was nothing to indicate the presence of cancer: there was nothing pointing toward it at all, she seemed to be suffering simply from extreme anemia.

DR. WALTER COLES.—Some of the older members may remember a specimen that was

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presented to this society about ten years ago, it being the stomach of a gentleman, the son of a former president of this society, whom I treated. There were simply symptoms of aggravated dyspepsia with cachexia. His cachetic condition and the aggravation of his symptoms led me to believe that there must be some sort of organic trouble in the stomach. On making an examination, I very readily detected a tumor. The tumor continued to grow; there was no vomiting, the symptoms were only those of dyspepsia. He afterwards went on to New York, and was examined by a number of prominent physicians, and they pronounced the disease an enlargement of the left lobe of the liver. When the gentleman died it was found that the liver was about the only organ in the abdominal cavity which was entirely healthy. The pancreas was adherent, and involved in the cancerous mass; the entire long curvature of the stomach was involved. The cardiac and pyloric extremites were not involved. If I remember correctly, the spleen and pancreas were involved, the pancreas being a cancerous mass. The patient was about 35 years of age.

Dr. A. H. Meisenbach.—I think in a case of aggravated dyspepsia in a patient who has passed a certain age, say forty years, where the dyspeptic symptoms are not alleviated under appropriate treatment we should always assume the possible existence of a cancerous condition of the stomach. I have seen several cases of that kind, where in the incipiency of the disease, the symptoms were purely of a dyspeptic character. At that time the hydrochloric acid test had not been invented. I suppose now we would be better able to determine the character of the trouble. But the symptoms are so insidious in these cases it is at times impossible to make a diagnosis in the earlier stage of the trouble; but as the disease becomes more grave, the symptoms more marked by the gradual development of the tumor in the pyloric or other portions of the stomach there can be no doubt as to the true nature of the trouble.

Dr. Frank R. Fry read a paper entitled "Remarks on a Case of Infantile Hemiplegia (Illustrated with photographs of the face). (See p. 230).

Dr. A. B. Shaw.—Was the face paralyzed on the same side as the rest of the body, was the tongue paralyzed, was the eye paralyzed?

Dr. Fry.—The face was paralyzed on the same side as the rest of the body, the eye was slightly affected. I could not determine whether the tongue was or not.

Dr. Shaw.—I made notes as the doctor described the case,and from the beginning it occurred to me that it was a very singular case of polio-myelitis. From the first I was impressed from the symptoms presented by the thought that here was a case of cerebral trouble—a case in all probability of trouble in the pons Varolii, implicating the crura cerebri and facial nerve, before the decussation of the facial nerve in the pons, and before the decussation of the motor fibers has taken place in the anterior pyramid, giving us a paralysis upon the same side of the face as of the body. The doctor states that unconsciousness was the first symptom; one of the most uncommon symptoms we have to deal with in polio-myelitis is unconsciousness. And it is very seldom that we meet with facial paralysis or difficulty in deglutition in this trouble. They are symptoms connected with cerebral lesions rather than with polio-myelitis. The face is very seldom involved in connection with polio-myelitis, or myelitis of the anterior horn, which I like very much better, being plain English, and showing just where the lesion is. Then we have as the next symptom that the head was retracted. I do not want to say that this does not accur in connection with polio-myelitis, but I do wish to say that I never have read of, or seen a case in which it was present. It is contrary to the condition which we have to deal with pathologically, that we should have a spastic condition of the muscles especially at the nape of the neck. We are dealing in this disease with a degeneration of the ganglionic cells in the anterior horn—of the gray matter-cells that control to a considerable degree reflex action; cells that certainly control to a

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very large extent, if not entirely, the trophic condition of muscles. We have this paralysis spoken of very graphically as atrophic paralysis, because of the suddenness of the paralysis, and the suddenness of the atrophy that is found to be present. Now this is entirely out of harmony with the probability of a spastic condition of the muscles whose motor centres are involved. In all atrophies not due to peripheral lesion we have this same condition of these ganglionic cells. Let it be progressive muscular atrophy, atrophy from central myelitis, or atrophy that is consecutive to locomotor ataxia, we find in all instances these ganglionic cells involved; we may have sclerosis, but we find other trouble in the ganglionic cells in the anterior cornua of the gray matter. This absence of atrophy is not in keeping with the facial symptoms, difficult deglutition, and the eye symptoms that the doctor mentioned,—as none of these parts showed atrophy. In so far as the presence of a materies morbi is concerned, we find that in adults about 28 per cent. of the cases so far reported of polio-myelitis are to be traced to exposure to intense cold. Pneumonia is attributed to cold and bacteria also. Now I apprehend that Dr. Fry has made a mistake in changing his diagnosis in this case. I think the symptomatology points to a cerebral lesion, much more strongly than it does to an inflammatory condition of the auterior horns of the gray matter of the spinal cord; and by assuming that we have a clot in the pons so situated as to interfere with the function of the facial nerves and to press upon the crura as it passes along over the pons, causing pressure upon the motor tract, we account for the symptoms that we have presented in this child so far as the paralysis of the face and arm without atrophy is concerned. The assumption of there being pressure would also account for the unconsciousness. Of course it is very much more difficult for anyone to form a diagnosis and pass judgment upon the significance of symptoms in a case that is described, than it is in one where one is in the presence of the patient himself; and I imagine there is more likelihood of my misconstruing or misunderstanding the symptomatology in this case than of Dr. Fry's doing so; but if I understand the symptoms, I am very much impressed with the idea that the doctor's first diagnosis was correct, that it is a central trouble and I cannot but think there has been both a cerebral and spinal lesion.

Dr. Bremer.—In all probability everybody would have made the mistake that Dr. Fry did. As Dr. Fry intimated, it is a case of polio-myelitis anterior, of an infectious origin; at all events the clinical picture is that of an acute infection. The high fever of the first days of the disease points that way. Now of course in all infectious diseases, especially infectious diseases of the central nervous system, sometimes a limited part, sometimes a more extended portion, and again the whole of the cerebro-spinal nervous system, is attacked. There are cases in which an acute polio-myelitis anterior attacks, only the lower portion of the lumbar enlargement of the spinal cord, and there is paraplegia; sometimes it is unilateral, sometimes bi lateral and sometimes it ascends as high as the medulla oblongata and pons. On the presumption that it is an infectious disease, why should not the nuclei, say for instance of the hypoglossal, glosso-pharyngeal and facial nerves be implicated in the same manner as only one half of the anterior gray substance or only the lower segments of the cord are. I take it, therefore, that not only was the gray substance of the anterior horns of the right side implicated, but also the same gray substance that constitutes the motor nuclei of the nerves that take their origin in the medulla oblongata and the pons. I am furthermore inclined to look upon this as a mixed case of cerebral and spinal infantile paralysis. These forms are not always distinct. They sometimes glide one into the other, and there are a great many transition stages. The inflammation is probably due to some inflammation producing organism which has not, as yet been discovered, because it is very rare that the child dies in the first stages of the disease. It is in the highest degree probable that the whole of the an-

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terior portion of the right half of the spinal cord, plus the motor nuclei of the medulla oblongata, and part of the pons were implicated. The unconsciousness, however, may be accounted for by the high fever. Spasms or coma may occur, and when the disease has run its course, in five or six days, when the first brunt has been sustained by the system and the attack repulsed; when the fever subsides, the cerebral symptoms gradually diminish, whereas the spinal symptoms remain. In regard to the prognosis, I believe it is comparatively good in this case; but there will always be more or less weakness and more or less atrophy in the affected members, because whenever any portion of the anterior gray horns has been destroyed, it is never regenerated under any circumstances, and loss of motor cells means loss of trophic power, *i. e.* atrophy of the corresponding muscles.

Dr. Henry Hermann.—The case is certainly a very interesting one because it seems to illustrate the mixed character of the disease, as the doctor has emphasized. The first symptom which the doctor described reminds one very much of the disease which Prof. Struempel has recently described as polio encephalitis acuta. The increase of the patellar tendon reflex was present in this case as in polio-encephalitis. The fact however that atrophy and degeneration of the muscles occurred afterward, speaks in favor of considering the spinal motor centres as being implicated to a greater extent. The case is certainly a very interesting one, because it shows, or at least it seems to point to the fact, that the disease may affect the spinal centres as well as the cerebral centers. These cases of polioencephalitis run entirely parallel with those of polio-myelitis; they occur at the same age and seem to be due to the same cause. Why should not both localities be affected at the same time? Why should it be the spinal cord alone that is affected in some cases, and in other cases only the cerebral cortex? It will be interesting to hear of this case subsequently, to see whether symptoms of motor irritation do not appear, such as athetosis or epilepsy. As it is, I am inclined to think the doctor's last diagnosis is correct, on account of the reactive degeneration which has developed in the lower extremities and which is never present in case of pure poli-encephalitis.

Dr. Prewitt.—I understood Dr. Shaw to say that unconsciousness was rare in cases of polio-myelitis anterior. I would like to know if that is actually the case. I would like to know whether we do not often have during the high fever which precedes the paralysis—or which frequently precedes it, a period of delirium and unconsciousness. In these cases, I think children usually have very high fever, and the true nature of the trouble is probably not suspected until the paralysis occurs; the child may have very high fever and it would naturally be delirious and unconscious. It seems to me that that would not be such a very rare thing in polio-myelitis anterior.

In this case the symptoms are certainly unusual, and, as Dr. Bremer says, I do not see why there could not be cerebral and spinal lesions occurring in the same case.

Dr. Shaw.—In answer to the question of Dr. Prewitt, I will say that one of the most admirable collections of cases that I have ever seen of polio-myelitis, is that of Dr. E. C. Seguin of New York, in which he states that as a rule high fever is the exception, and that unconsciousness is a very rare symptom. The fever of polio-myelitis does not as a rule last more than about four or five days; during the last days it is of a low type. The disease has frequently made its appearance without any fever; there is a non-febrile variety as well as a febrile variety; an acute and a chronic.

We find these cases given by Charcot, and others, and some are given by Seguin himself. I think there are forty-five. All that had been described down to 1877 or 1878 are enumerated.

It is some time since I saw the work but I remember the statement that cerebral symptoms are the exception to the rule.

Dr. Prewitt.—If I remember correctly Seguin speaks of cases being mistaken for the fever incident to childhood.

Dr. Fry.—In regard to what Dr. Prewitt

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and Dr. Shaw are now discussing, Ross in his recent work on diseases of the nervous system, talks about the rarity of cerebral symptoms of any kind, especially of unconsciousness, lasting for any length of time, and of absence of facial paralysis. In regard to the position which Dr. Shaw took as to the diagnosis, I think Dr. Hermann has answered him. The condition of the muscle in the calf of this baby's leg, at present shows unmistakably that there has been a spinal lesion and quite as emphatically that it has been a lesion of the motor cells of the anterior cornua. In proposing the question in my paper as to whether there had not been a lesion of the encephalon, I used the word encephalon davisedly, in order to give those who attempted to answer the question large latitude. I had in mind the position which Dr. Hermann has taken; that is, that there had been a poli encephalitis as well. It seemed to me rather strange that there should have been so much evidence of cerebral implication, ending with as few remaining, or after symptoms, if an inflammation of the motor ganglia of the cerebrum had been the explanation of the condition. Also as Dr. Hermann has suggested, there are no remaining symptoms of irritability. There are no choreic movements, no convulsions, and there have not been, at any time. Cases of poli-encephalitis are apt to be followed by some of these symptoms. I am not satisfied that this characteristic pathological process, affecting the motor cells, extended beyond the pons, beyond the floor of the fourth ventricle; I do believe that it reached there and that that was the cause of the facial paralysis.

Dr. Shaw.—How do you explain the non-interference with respiration?

Dr. Fry.—Dr. Bremer has substantially answered the question in his remarks; this process of inflammation is not distributed with evenness through all the motor cells. Some are manifestly much more affected than other: for instance, the centres governing respiration might have been exempt, and therefore no respiratory symptoms of any severity.

Concealed Menstruation.—Dr. Giles S. Mitchell in a paper read before the acadmey of Medicine (*Cin. Lancet-Clinic*) reported an interesting case of concealed menstruation dependent upon imperforate hymen. The patient, æt. 16 years, for more than a year had been regularly attacked with pains in lower part of abdomen, pelvis and back which continued for four or five days, and gradually disappeared to return in three or four weeks.

Upon examination a tumor half as large as a child's head perfectly regular in form was detected above the symphysis pubis. There was about the same amount of distention of the vulva and perineum as usually obtains in the second stage of labor when the presenting head presses the perineum.

Dr. Mitchell made a small incision through the lower border of the hymen, patient being in the Simon position, and gave exit to about five pints of inodorous fluid of the consistency of tar and of a brownish-red color. Perhaps an hour was required for its evacuation. Patient was requested to remain in bed one week. No pain was complained of after operation until next menstrual period, when he was again sent for. An examination revealed the hymen again imperforate. The incision that had been made had closed, leaving no trace.

He now recognized, for the first time, the great thickness of that structure. At time of first operation it was so enormously distended that it was apparently as thin as paper; now however, there being only a slight quantity of fluid present, it had contracted and retracted until it was one quarter of an inch thick and very vascular.

Placing the patient in the same position assumed during first operation, he succeeded after some difficulty in removing a circular portion as large as a dime. Hemorrhage for the moment was profuse, but was readily controlled by a plug of antiseptic lint. The lint was permitted to remain in the wound fourteen hours, and was then reylaced by a fresh piece. After remaining in bed six or seven days, patient was discharged. She has menstruated regularly since that time, and it is accompanied with scarcely any pain.

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REPORTS ON PROGRESS.

PATHOLOGY.

BY J. E. LEMEN, M. D.

I. THE PATHOLOGY OF INFECTIOUS AND INFECTIVE DISEASES.

II. ULCERATIONS OF FEMALE URETHRA.—Landau.

III. MYXEDEMA OF CHILDHOOD OR SPORADIC CRETINISM.

IV. THE CONDITION OF BLOOD IN CHLOROSIS.

V. PATHOLOGY OF INFLAMMATION ABOUT CECUM AND VERMIFORM APPENDIX.

THE PATHOLOGY OF INFECTIOUS AND INFECTIVE DISEASES.

In his treatment of this subject Dr. Joseph Coates takes for granted that we have to do with specific micro-organisms. He makes special mention of tuberculosis, syphilis, leprosy, glanders, etc. The idea of the author is that inherited tendencies are largely instrumental in the transmission of infective and infectious diseases. He proceeds to show what the domain of inheritance is, and what influence it has on the anatomical and physiological conditions of our bodies. He asks us to remember that when the ovum leaves the ovary and becomes fertilized by spermatozoa it enters on what is in many aspects an independent career. The ovum holds in itself the wonderful possibilities of future man or woman and if sufficient material be provided and it be protected from all injurious influences it goes on developing the various tissues in due proportion. The ovum already possesses, transmitted from the parent ovum, the extraordinary forces by virtue of which the bony tissue, the muscles, skin, nervous tissue and all the rest are produced in their definite, fixed amounts and forms.

The frame is modelled by this inherent force till at the end of nine months of silent growth a human babe is born. We may say, then, that it is by virtue of inherited forces that the human embryo works out its destiny in producing a human being. It is by virtue of inheritance that mankind is propagated; but these forces continue through life and we see this influence of inheritance in the fact that nearly every man conforms to the characteristics of mankind in general at different periods of life.

Now turning to morbid conditions Dr. Coates cites one or two undoubted cases of inheritance. In one of these the second and third toes of both feet are imperfectly separated so that although the bones are complete, the toes are united nearly to the tips by a web of skin. This peculiarity existed in a man who transmitted it to a son, who died in childhood; to a grand-son, the son of his daughter, and to a grand-daughter. We are all familiar with the inheritance of hemaphilia or hemorrhagic diathesis and with the peculiar mode of this inheritance.

Diabetes insipidus is also apparently hereditary in a remarkable degree. In this affection, the person drinks water excessively and passes a large excess of urine. We may infer that the kidneys are large, and we know that the bladder is unusually capacious. The author shows that some families are especially prone to scarlet fever and diphtheria, and in some cases are almost annihilated by successive visitations of these diseases. That tuberculosis is a disease in which inheritance plays a very important part is certain.

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Dr. Coates also shows that some races are more susceptible to certain diseases than other races. Fer instance, the negro is much more liable to attacks of small-pox, phthisis pulmonalis, and leprosy than the European races, and less so to yellow fever, malarial fevers and syphilis. These facts indicate that along with the various racial peculiarities transmitted by inheritance we have certain physiological characters which determine our greater or lesser susceptibility to disease.

The following are Dr. Coates' conclusions:

We have seen that, in the case of a large number of diseases of this class, inheritance, whether we take it more broadly in the race or more particularly in the family, has an undoubted and frequently a very great influence on the susceptibility to infection. This varying degree of susceptibility exists in the case of diseases which are demonstrably due to the action of micro-organisms, and we are driven to the conclusion that a micro-organism which is pathogenic in the individuals of one race to a high degree is non-pathogenic, or nearly so, in the individuals of another race.

Recurring to our remarks on the general principles of inheritance, it seems necessary to relate this difference in susceptibility to fine differences in the structure and activity of the tissues. We have seen that the differences in the races depend on variations in the details of their tissues, such as singly might seem to be of comparatively little moment. The differences in individuals of the same race are still more minute, and depend on still finer variations in the details of the tissues. Coming to undoubted cases of inheritance of morbid conditions, we saw by illustrations that it was variations in the details of structure and function which are the subject of inheritance. In ichthyosis it is the structure and mode of growth of the epidermic cells; in hemophilia it is the structure, presumably, of the blood vessels; in Daltonism the finer details of the structure and function of the retina. In all these cases it is the structure and activity of the finer elements of the tissues concerned which are at fault.

When we find that the varying susceptibility to infectious and infective diseases is also related to inheritance, then we must, I think, relate it to the same kind of variations as those which we have found to be the subject of inheritance both of normal and abnormal structures. It is, again, the structure and vital activity of the elements of the tissues with which we have to do. If, as we have seen, the negro race differs very remarkably in its susceptibility to infectious disease from the European races, then we are led to believe that this depends on fine differences in the structure and activity of its tissues, such as determine the characters of race. It is the living active tissues with which we have to deal, and it is peculiarities in these, determined by inheritance, which, I believe, constitute the differences.

Let us take it for granted that some at least of the diseases in question depend on micro-organisms. We know that the living active cells which compose the epidermic and epithelial tissues exercise an important influence in preventing the entrance of micro-organisms. Abundant bacteria are present on the surface of the skin and in the alimentary canal, but the epithelial and epidermic cells inhibit them, and prevent their entrance into the body—that is part of the function of these cells. Similarly, the cells of a granulating wound inhibit the bacteria which may swarm in the pus bathing the wound. These micro-organisms become dangerous when they are carried beyond these surfaces, as when perforation of the stomach or intestine occurs, or when decomposition takes place in a recent wound before granulations have had time to form. The living tissues beneath these surfaces have less power of inhibition, although still possessing it in some degree. It is only certain micro-organisms which will survive, even if introduced in the way mentioned. It is important to remember that each living tissue consists of an immense number of living active cells, each of which has its own vital processes. The micro-organisms also consist of living active cells, which possess an extraordinary power of multiplication by division. I believe we must look for the solution of the

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problem to the contending activities of the two kinds of cells. No doubt there are intricate chemical problems involved in all this. Each cell has its incomings and outgoings, and it is quite possible that it may be by means of some of the chemical products that the inhibition is effected; but of this we know nothing, and we can only associate it with the vital activity of the elements of the tissues.

Of course, it is not to be inferred that inheritance is the only item in determining variations in susceptibility. We know that the same individual will at diffent times present remarkable variations in the degrees of susceptibility to the same morbific agent. I have chosen inheritance to illustrate the subject because it appeared to me to offer examples which would serve to indicate the kind of influence concerned in the varying degrees of susceptibility to the class of diseases under consideration.

If my remarks are justified by the facts which I have adduced, then I think there can be nothing contradictory in speaking of the varying susceptibility of different persons or of the same person at different times to the same infective or infectious disease. We can recognize in all such cases the action on the one hand of the morbific agent, and on the other the reaction of the living tissues.

We think Dr. Coates is correct in his conclusions, in regard to inheritance, but a stronger factor in determining the susceptibility to disease is that the nervous system has greater power of resistance at one time than at another.

When a patient is exposed to long continued nervous strain, unsanitary surroundings and the like, this resistance is greatly reduced.

Landau on Ulcerations of the Female Urethra.

Dr. Landau discusses the different forms of ulceration of the urethra in women and their causes—mechanical injury, parturition, diphtheria, bacterial infection, gonorrhea, chancre, tubercle—and adduces five cases of what he calls "ulcus rodens urethra." This consists of a process of ulceration which slowly and continuously destroys the walls of the urethra but not the adjacent tissues. It gradually extends from the urethral orifice towards the bladder, and only ceases when the whole extent has been involved. There is no tendency to new formation, nor to healing. For a long time it gives rise to so little inconvenience that the patient is quite unaware that there is anything wrong until the occurrence of marked suppuration, or of incontinence of urine attracts her attention. On examination, the meatus urethra is found covered with pus and studded with a number of uneven swellings, between which are deep fissures, and thus the canal is rendered uneven. These swellings resemble pointed condylomata, are soft to the feel, bleed very readily when touched, and often fill the urethra as far as the neck of the bladder. If the finger is introduced a rough surface is felt, and the canal is found to have become narrower towards the bladder, so that it seems to be conical in form, the apex of the cone being towards the bladder. From the vagina the urethra and periurethral tissue feel thickened and infiltrated. Four of Dr. Landau's patients were undoubtedly syphilitic, and the fifth also had probably suffered from syphilis. The author considers the ulceration to be syphilitic in character; but he only looks upon syphilis as the foundation on which the ulcerative process—the exact nature of which is unknown—develops itself. The prognosis, as regards life, is not unfavorable, unless the process extend to the bladder and the kidneys become implicated. But a perfect cure is never to be looked for, and complete cessation of the destructive process is very rare. Scraping, followed by the application of lactic acid, is the treatment recommended by the author. Anti-syphilitic remedies proved useless; but Dr. Landau thinks they might be of service at an earlier period, combined with the local application of lactic acid.—*London Medical Record*, Dec. 15, 1887.

[I think that attention to the general condition of the patient in these cases is very

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necessary, and that the patient should have full doses of tartrate of iron and potassium with attention to the disease locally.

It would be well to apply the thermo-cautery to the ulcerating part, following it by a bland ointment, the patient wearing a catheter to prevent the ulcerations being bathed in urine.]

Myxedema of Childhood, or Sporadic Cretinism.

Mr. Owen, of London, is of the opinion that the characteristic deposits in the neck, as also those which shroud the muscles of, and thicken the limbs, are the result of mucoid infiltration of the subcutaneous tissue, and are not of the nature of fat.

It is suggested that the physical and intellectual defects in these children are due to the absence of the thyroid gland, depriving the economy of certain assimilative processes. Mr. Horsley has shown that the removal of the thyroid gland is likely to be followed by progressive myxedema.

Of the one disease there are three forms resulting from destruction or atrophy of thyroid gland.

(1.) Intra-uterine cretinism, where the child is always born dead.

(2.) Sporadic cretinism of childhood in which there is early loss of the gland.

(3.) Adult cretinism or myxedema of middle life.

The condition in myxedema is fairly well understood, but why we have atrophy of thyroid gland in myxedema of childhood has never been explained.

The Condition of the Blood in Chlorosis.

Dr. O. Barbacci, of Berlin, found that in a number of chlorotic patients the hemoglobin varied from 39 to 50 per cent. of its amount in healthy patients. After treatment, the quantity increased from 10 to 30 per cent, and then remained stationary; the normal amount not being reached, even after long treatment by tonics, of iron, etc. In such cases one of the very best tonics is out of door life. This in conjunction with iron will increase the hemoglobin rapidly.

The Pathology of Inflammation About the Cecum and Vermiform Appendix.

Dr. Henry B. Sands reports an interesting case of laparotomy for septic peritonitis, due to perforation of the vermiform appendix.

There was an escape of fecal matter, through the opening in the vermiform appendix, into the peritoneal cavity. The cavity was cleaned and disinfected with bichloride of mercury, 1 to 1,000. This case recovered without any bad symptoms. In his report Dr. Sands gives some points as to the inflammatory conditions affecting the cecum or vermiform appendix, which lead to the development of a circumscribed tumor.

His cases include those where ulceration or gangrene causes a slowly-spreading septic peritonitis, as well as those in which acute peritonitis is set up by the direct entrance of feces into the peritoneal cavity. He distinguishes four varieties of these disorders.

1. A perityphlitis, in which the tumor undergoes resolution.

He gives as symptoms of this form, pain in the abdomen, most marked on the right side, a tender deep-seated lump in right iliac fossa, fever, nausea, and vomiting. This tumor may become large and be felt through the rectum, but is not marked over the site of the cecum itself, which is generally resonant on percussion, and can be felt in front of the tumor. When the inflammation involves the cecum, the resonance is occasionally absent. Cases that terminate by resolution often present mild symptoms, but may be quite acute. Under treatment the tumor may disappear in a week, or resolution may be delayed much longer. In the condition described above Dr. Sands believes that the appendix is the source of the trouble. That this is true is partially proven by the fact that the tumor is in some cases back of the cecum as men-

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tioned above, the tumor may occupy other positions and this again corresponds with the variation of the position of the appendix.

2. The second group consists of those in which abscesses form. The lapse of a week is generally required before a diagnosis can be made. After that time has passed, if the condition has not improved we may suspect that an abscess has formed. Such abscesses are extra-peritoneal, and pus forms in these perityphlitic abscesses at an early stage, in the lax connective tissue that lies between the iliac fascia, and the peritoneum adjacent to the cecum and appendix, and is thus shut off from the peritoneal cavity. If this were not so we would have general septic peritonitis.

3. The third set of cases belong to the class for which the operation of laparotomy, detailed in Dr. Sands paper was performed. These are not cases of pure perityphlitis, but peritonitis due to escape of fecal matter, from a perforated appendix into the peritoneal cavity. The essential feature in these cases is the immediate invasion of the serous cavity, by fecal matter setting up general septic peritonitis. Generally the attack is sudden, and collapse frequently appears within forty-eight hours. In these cases there is tumefaction without the tumor, and all the indications point to early operation for relief of patients before the peritonitis becomes general.

4. The fourth class is comprised of those in which the symptoms are obscure, and the disease comes on slowly, with pain in cecal region and temperature normal. After a time the symptoms become more alarming, stercoraceous vomiting occurs, the heart fails, and the patient dies. In these cases the trouble arises in the vermiform appendix, which is finally perforated in one or more places, and is frequently gangrenous.

[The conditions present in the case spoken of are certainly very interesting, and we believe that in many cases of inflammation about the cecum and appendix the trouble is not recognized, at least until too late to benefit the patient. We remember a case reported at one of our medical societies in which the onset of the attack was sudden, the pain confined to the region of the appendix in the beginning, and the inflammation gradually extended to the general peritoneum. The patient died.

At the autopsy the appendix was found to contain several large seeds.

ORIGINAL ARTICLES.

MUSHROOM PARASITES IN THE EAR—A NEW REMEDY FOR SAME.

BY A. D. WILLIAMS, M. D.

Read before the St. Louis Medical Society.

This form of disease of the ear is not so uncommon as is generally supposed. The parasite does not develop primarily in the ear, but, being carried in the atmosphere, it accidently lodges in the ear and finding good soil there, it grows very rapidly. The parasite is also carried in water and may reach the ear through that medium.

The only explanation I can give of the fact that the disease does not occur much more frequently than it does, is the probability that only occasionally an ear is found that furnishes suitable soil and proper nourishment for the growth of the parasite. It attacks both healthy and unhealthy ears, but more frequently the latter, showing that diseased flesh favors its lodgment and growth. Ears that have been the seat of otorrhea, are particularly apt to catch the wandering parasite.

Whether it develops in healthy or unhealthy ears, it excites fresh inflammation, but not usually of a violent character. Patients generally complain of a sense of fulness, smarting and some aching, but not often of much pain, though I have seen cases where the suffering was quite severe. I have observed abrasions of the skin, and of the surface of the membrana tympani. There is always a watery discharge, but very little, if any pus. This parasite does not excite free suppuration.

It attaches itself mostly to the skin close

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around the bottom of the meatus, to the surface of the membrane, and, if a perforation is present, it may enter the drum cavity. When once planted, the parasite grows quite rapidly. The first evidence of its presence that can be seen, is a white, lard-like secretion that forms usually in spots on the surface of the membrane and adjacent skin. These spots rapidly increase, soon run together and cover the membrane and the skin around the bottom of the meatus. The growth continues from the bottom, or skin and membrane surfaces, pushing the superimposed mass outward, and soon fills up the bottom of the meatus. If let alone this characteristic secretion will sooner or later fill the entire ear. But I am convinced from my observation that growth takes place only while in contact with the flesh; that in the mass of secretion absolutely no growth occurs.

In other words I may say that the parasite dies as soon as it is separated from the flesh.

While it is short-lived, it has the power to perpetuate itself indefinitely. It is doubtful, to say the least, whether a case would ever spontaneously get well.

During the past few months I have had quite a harvest in the line of aspergillus, which is the technical name for mushroom parasite, and this fact has induced me to write a short paper on the subject. I have not kept a complete record of the cases, but I think I have treated as many as a dozen in the last six or eight months.

I do not propose to refer to all the cases, but will, in brief detail give only the last one treated, which was dismissed last week.

A young healthy man had several years since, bad and long-continued otorrhea in one ear. This got well promptly under the usual treatment. A large perforation of the drum-head was left by the disease.

Recently this man returned for treatment, supposing that he had a fresh attack of the old otorrhea. The meatus was filled up with a white mass, presenting a flaky appearance. The outer portion had a brownish color, evidently the result of age and exposure to the air and external dirt. There was a watery discharge with some pus mixed in it. The patient complained only of a sense of fulness or heaviness about the ear with some burning and smarting. Deafness was of course present, but the ear had been permanently injured by the old otorrhea.

Syringing brought away a large quantity of the mass, but left the bottom of the meatus and surface of the drum covered with a very white, lard like, secretion, which adhered so closely to the skin and membrane that the water would not bring the masses away. They could not be picked away with the forceps with any degree of success, because the material was so tender and friable it would not hang together.

These facts definitely settled the diagnosis of *aspergillus* or *mushroom parasites*, but, wishing to observe its behavior for 24 hours, after drying the ear well, I applied dry boracic acid. After syringing next morning, I found that the white deposits had materially increased. This was a confirmation of the previous diagnosis. I now managed to pull with the forceps quite a large piece of the deposit out of the old perforation in the membrane, and to be positively certain of the diagnosis, I had it carefully examined with the microscope by Dr. James who, as you know, is an expert with that instrument. He reports it to be a "fine specimen" of aspergillus, and has kindly made me a drawing of what he found, which I present.

Being now thoroughly satisfied of the correctness of the diagnosis, I applied camphophenique, which is a new remedy I have lately been using in cases of mushroom parasites with most excellent results. I twisted a little cotton on the end of a probe, stuck it into the medicine, which, as you see, is an oil-like fluid, and gently swabbed it over the whole inside of the ear.

The second day afterward the ear was much improved. Instead of increasing, the white deposits had loosened so that the syringing brought most of them away quite easily. I now applied the medicine a second time just as before. When the patient returned in four or five days after the last appli-

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ation I found the ear perfectly clean. Not a ingle trace of the white, lard-like, deposit ould be seen anywhere. The ear being per-ctly dry, I dismissed the patient.

The first case in which I used this remedy, nd I write this paper chiefly to bring the emedy to the notice of the profession, was omewhat peculiar.

A gentleman had had double otorrhea with rge perforation in each drum. The usual eatment had about relieved the suppuration hen suddenly a white, lard-like, secretion ppeared in each ear, causing considerable in-ammation and soreness, but no considerable ain. Abrasions of the skin appeared in both rs and these would easily bleed. The char-cteristic watery discharge, containing some us, made its appearance with the deposits. he pathognomonic white, lard-like, deposits roved to me that mushroom parasites had uddenly developed in the case and I ordered irst the use of common alcohol, which has heretofore been the usual treatment for this isease. Later I used absolute alcohol, but pparently neither had the slightest effect. n I did not know what else to do I swabbed he ear with campho-phenique, a bottle of hich was on the table.

The next morning I was greatly surprised find the ear perfectly clean and dry! I n treated the other ear in the same way next day found it also clean and dry. fter two or three days observation I dis-ssed the patient. He has had no trouble nce.

I am inclined to think that I communica-the disease to this patient by using the me syringe and instruments I had used on nother case about the same time. I always the precaution to scald the syringe and ruments after treating such cases.

he sudden development may have been a cidence merely.

ast summer I remember treating three s of aspergillus within a few days of each-r; all apparently contracted the disease n the water while swimming. One bathed the surf, one in the river here and one in swimming school. All took the disease soon after leaving the water. All recovered nicely from the use of a solution of boracic acid in alcohol, while alcohol is successful in most acsesof aspergillus, in some cases it apparently has no effect whatever. The treatment by alcoholusually lasts from one to two weeks. I have not had to use the campho-phenique more than twice in the same ear so far.

My experience justifies me in regarding it as something of a specific in mushroom parasites.

Campho-phenique is comparatively a new medicine. It is made by mixing gum camphor and phenol in about equal portions in such a way that perfect chemical combination takes place, forming a new product, having many of the properties of either element separately and many very valuable properties peculiar to the combination.

It is non-irritant, antiseptic and disinfectant. It is an oil-like fluid with a strong camphor smell and is in no sense a caustic. In the ear it is barely felt. It is largely used to wash and disinfect both fresh and old wounds and sores of all kinds.

It has given me great satisfaction in the treatment of aspergillus. By analogy I would suppose that it would act very favorably in all parasitical diseases.

I omitted to say in the proper place that there are varieties of aspergillus. but we are not particularly interested in their characteristics here.

Mushroom parasites can not be seen with the naked eye, with a lens black specks in the mass can be seen, but the microscope must reveal them in perfection.

SOME RARER CASES OF INJURIES TO THE EYE

BY CH. BARCK, M. D., ST. LOUIS.

Read before the St. Louis Medical Society.

I.—A Piece of Glass in the Anterior Chamber.—Whilst B. G., æt. 12, was working in a soda factory, a bottle burst and a piece of it struck his eye. He came to my office an hour afterward. The left eye was in-

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jected and painful. In the centre of the cornea there was an irregular wound from above downward and outward. The anterior chamber was of normal depth and transparency; the pupil round and mobile. So I thought first, that the injury was only a superficial one. But on focal illumination, lines, due to irregular refraction seemed to be in the anterior chamber, so that I took the patient into the dark room for a more thorough examination. Here a transparent body could be made out in the anterior chamber by the black edges appearing and disappearing with the change of the position of the lens. It could of course be nothing else than a piece of glass and seemed to rest with the one end upon the posterior corneal surface and with the other on the iris. I convinced myself once more that it was not possible to see it by ordinary day light. This may be explained by the fact, that glass has nearly the same index, of refraction as the equeous humor.

I proceeded then to the removal. After enlarging the wound with Graefe's knife, I succeeded in bringing it behind the piece of glass and moved this by cautious manipulations into, and then out of, the incision. Iris and anterior capsule had not been injured either by the foreign body or by the operation, as the result showed. The wound healed under bandage and atropia within two weeks. Vision was $^{20}/_{100}$ afterward, this being as good as could be expected with a scar going just through the centre of the cornea. The piece of glass was nearly triangular, 1½ lines in length.

II.—A Thorn in the Ciliary Body.—Mr. P. O., aged 42, came to my office with the following history. Four days previously, whilst he was picking berries in the woods, something struck his eye. He experienced a sharp pain, and after a few hours the eye became inflamed and the pain so severe that he could not sleep for three nights. He made applications of warm moistened bread during this time.

On examination the left eye-ball presented itself in a state of high inflammation. A thick edematous ring surrounded the cornea. The aqueous humor was cloudy, but no hypopyon. The tissue of the iris was discolored and swollen; the pupil was contracted some exudations covering it. At the outer end of the horizontal meridian of the cornea, just at the margin, there was a minute scar visible and below in the sclera there was a black point shining through. I made a small incision down to it and finding a foreign body somewhat soft, succeeded in pushing the edge of Graefe's knife into it, and to my astonishment extracted a long thorn. It was a blackberry thorn, 3 lines long and at the base 1½ lines broad. It had entered just at the sclero-corneal margin, then penetrated the suspensory ligament of the lens and was lodged in the ciliary body and vitreous. The lens had not been injured, as no cataract followed.

The patient made an excellent recovery. The severe irido-cyclitis improved regularly under appropriate treatment and the patient was dismissed three weeks afterward. The adhesions of the iris had been dissolved, the exudation reabsorbed and he was dismissed with normal vision and accomodation. I saw him six months later, the functions of the eye remaining normal.

III. A Case of Traumatic Iridereme (total Absence of the Iris.)—L. R., aged 46, consulted me on account of a mild conjunctivitis of the left eye. On this occasion I noticed the peculiar appearance of his right eye, due to a complete loss of the iris. On inquiry the patient said that he received the injury two years before whilst hoeing. He was struck violently by a mass of earth and experienced a sharp pain. Immediately afterward he could see nothing with the injured eye. He put himself under the care of a physician for a few days, but was free from pain, and was not even detained from work. Within a few months sight returned to some degree.

The examination revealed a scar in the sclera two mm. from the the corneal margin in the horizontal meridian. It was irregular about one mm. in diameter, and so thin that the choroid showed through. The space behind the cornea was of a dark grayish-black

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olor. No trace of iris was present. With he ophthalmoscope the equator of the lens ould be seen all around as a sharp black ine.

Above, below and along the outer border he ciliary processes were distinctly visible, ut not along the inner boder. The lens was ansparent but showed a few small opaque ris around the equator. In the vitreous ere were many opacities so that the fundus uld be seen only indistinctly. They moved ickly when the eyeball was turned, indicat- g a considerable degree of synchysis of the treous. Vision, 20-200, not improved by lasses. Reads Sn. VIII. with difficulty; but is proves that some accommodation was reserved.

The eye is not injected, has not caused him ny discomfort since. There is not even photophobia, no doubt on account of the opacities in the vitreous.

Irideremia is either congenital or of trau- matic origin. In the congenital cases both yes are always affected and generally other fects of development are present. They e not so very rare and have been known for long time.

As to the traumatic cases it is the general lief that the first was reported by v. Graefe, 68. I find two cases mentioned in Arlt's xt-book of 1854. Since 1870 a number of ses have been described, and I have col- ted them in order to throw more light on the mode of origin, especially as the xt books do not mention this state at all. ven in the large hand-book of Graefe-Sae- sch, Prof. Wecker drops the subject with a w remarks of incredulity. The question at arises is, how the loss of the iris takes ace; whether it is torn out of the eye im- diately through the wound made by the jury, or if after complete irido-dialysis, it n be dissolved in the aqueous chamber.

The cases reported in the literature at my sposal are the following:

1, 2. Arlt, book, 1854.
3. v. Graefe, Archives, 1868.
4. Chisolm, Lancet, '72.
5. Folker, Brit. Med. Jour., '72.
6, 7. Schaligin, Med. Bate, Russia, '72.
8. Argyll Robertson, Congress of London Reports, '73.
9. Hyart, Klin. Monatsblaetten f. Augenheilkunde, '76.
10. Story, Brit. Med. Jour., '78.
11. Lange, Petersburger Med. Wochenschrift, '79.
12. Peller, Centralblatt f. Pract. Augh., '80.
13. Holmes, Arch. of Ophthal., '81.
14. Fanno, Journ. d' Oculistics, '84.
15. Ths reported one.

In three of those cases (Nos. 3, 9, 14) the history relates clearly a direct avulsion of the iris from the eye through a large wound in which remnants of it were found soon after the injury. On the other side in five cases, Nos. 2, 5, 6, 11, 13, which were examined some months or years after the injury, it is stated that pieces of the iris were present still in the aqueous chamber as white, grayish bands or flakes, proving a gradual absorption after complete iridodialysis. Deprived of nutrition, the iris is like a foreign body in aqueous chamber, and theoretically the possibility of absorption can not be dedenied, as we know large and dense exudations are often absorbed.

I am inclined to add my own case to this latter series, as the wound seemed too small and healed too quickly to make a primary avulsion probable.

PHTHISIS AND CONTAGION.—"In an article in La clinique' on the 'contagiosity of Tuberculosis,' by M. Destree and Slosse," says the "Lancet," "it is stated that from inquiries and observation made in Dr. Desmeth's wards during the present year it was found that, of fifty patients suffering from tuberculosis, contagion could be regarded as an undoubted etiological factor in twelve, heredity in thirty: no cause could be traced in the remaining eight. The two factors, the authors say, are frequently present, and it is difficult to determine to which of them the preponderating influence is to be ascribed."—*N. Y. Med. Jour.*

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WEEKLY MEDICAL REVIEW,

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J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, MARCH 10, 1888.

HYPODERMIC MEDICATION.

A physician without his instruments is as a lawyer without his witnesses, or a carpenter without his tools. A pocket case, a metal catheter, a fever thermometer and a hypodermic syringe are essentials to successful practice, and no physician who does his whole duty by his patrons ever makes a call without them. The hypodermic syringe is an instrument for emergencies and we cannot dispense with it since we have no substitute for it.

So long and so universally has this method of medication been used, and so generally is it understood, that we should hesitate to add any suggestions or precautions, were it not that it is often beneficial to rehearse lessons that have been learned long ago. The daily prompt and beneficial results attained by its use, have created a tendency on the part of physicians to disregard the dangers that may accrue. In a leading article on this subject the *Therapeutic Gazette* says:

"As is well known, the objections to the method are twofold: first, the danger of the production of local inflammation and abscesses: secondly, the possibility of throwing the whole mass directly into a vein and having it swept in concentrated form into the heart or a nerve-center. The last of these two dangers is a remote one, and yet we have seen the injection of a sixth of a grain of morphine followed within a minute by a complete unconsciousness and collapse, with arrest of respiration, dropping of the jaw, and apparent death, a condition from which the patient was rescued only by the most strenuous efforts. The danger of such an accident can be greatly lessened by withdrawing the point of the needle a little after it has been plunged into the tissue.

It is especially in the production of local irritation that the danger of the hypodermic syringe lies. Not only have abscesses been frequently produced, but in not a few cases fatal tetanus has resulted from the administration of an irritant substance. There can be no doubt that this difficulty can be largely overcome by certain precautions which are frequently neglected by medical practitioners. In the first place, only under urgent circumstances is the doctor justified in using hypodermically substances which are very irritant such as sulpnate of quinine. When, however any such substance is employed, it is of the utmost importance to see that every particle of it is dissolved, and if the substance be of such nature that it is precipitated by alkalies an acid should be present in the solution in water to prevent the precipitation by the juices of the cellular tissues. An irritant substance which is rapidly dissolved and taken up from the part may produce at first smarting and pain, but ought not to make any permanent irritation. To prevent any possibility of the injection of minute solid particles, the hypodermic solution should always be filtered."

In the absorbing interest of the physician in the disease he is treating, idiosyncracy of the patient may be lost sight of. We have seen one-sixtieth of a grain of pilocarpine used hypodermically produce very profuse perspiration in one case, while in another one-eighth of a grain produced only a moderate flushing of the surface. Idiosyncrasy in regard to morphia should always be remembered. The inflammation that often arises at the site of the indroduction of the drug used is due either to some foreign substance deposited in the tissues by the needle or to the irritant quality of the drug.

Abscess cavities formed in this way, as a rule heal very slowly.

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The fact that the hypodermic use of morphia is so seldom followed by abscess, is probably due to its local anodyne and sedative effect. If this be true, a rational practice would be to add some local sedative that is not incompatible with the drug used. The *Gazette* recommends, that one drop of carbolic acid and one or two drops of glycerine be added to every fifteen minims of the solution used, the physician keeping in mind, however, that some alkaloids are thrown out of their solution by the addition of too much glycerine. Carbolic acid acts as a sedative.

It is thought by some that solutions are absorbed more readily when injected into the subcutaneous tissue, than when thrown into muscular tissue. This is a mooted question.

When the needle is held perpendicular to the surface and plunged through the skin into muscular tissue the patient scarcely feels its introduction. This method is attended with more danger than that of simply introducing the needle under the skin. An artery may be wounded, or in careless hands the point of the needle may be broken off in a bone.

In hyperemia, or in beginning atrophy of the optic nerve, it is often desirable to continue daily injections of strychnia for some weeks. These almost invariably produce inflammatory exudation forming hard knots, varying in size from that of a hazel-nut to that of a walnut. These knots are persistent, in some cases painful and if there be many of them they interfere with the action of the muscles in which they are located.

Since the promulgation of the germ theory of disease, attention has been specially called to the spoiling of liquids that are kept for some length of time for hypodermic use.

Often a month or more passes by in the work of a general practitioner in which he has no occasion to use the hypodermic syringe.

There has as yet been no practical means devised by which solutions may be kept perfectly pure and of original strength for any length of time. Either evaporation takes place or a fungus growth appears in the liquid. Large drug houses have overcome this difficulty by making readily soluble tablets of definite strength that may be kept with security. These are of great advantage to the country practitioner who without them, often has to guess at the dose he uses.

Thoughts Suggested by Medical College Announcements.

A long time ago some one remarked we think in sober ernest, that the profession was "too full." Since then much thought has been given and many suggestions made to remedy the evil, but still they come. Immigration and graduation, fling wide the doors. A pale youth called examination guards the entrance but he is often very slight, and sometimes sick. Many within the sacred walls delight to inveigle the unwary to force a passage.

Starvation lunches are in view. Hard work and patient waiting, first for patients and then for their money is the average outlook, but on they come, without money and numberless.

The public laughs and suffers. The doctors press on and the press records that "doctors disagree." Meanwhile medical colleges grow apace and multiply. Each traces over the door or upon its annual announcement, something in favor of higher medical education, while the fees are gradually reduced and the terms are frequently indecently short.

The aspirant says, "It required but nine months to fit me for entering upon my own life, why can I not in an equally short time be ready to take charge of the lives of others?"

It is unjust to the young man who in the early spring time "hangs up the banner on the outer wall" to assure him that success in his noble profession is merely a matter of time. Thank God success does come, but it comes to him who through long years of study and practical acquisition has fitted himself for his work, and in spite of over-crowding, and false inducements.

But what can be done for the half-famished members of the poorly equipped army that annually beseige the redoubts of science and

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upon whom disappointment does not rest gracefully. Shall they sit down and smoke themselves into blissful quietude, or shall they crowd forward like Juggernaut over the mangled limbs and dying bodies of their victims?

Rather let him who finds himself defrauded of promised capital, and who has waked up to the knowledge that a few months upon a hard bench confronting, let us grant, even the best of teachers, does not fit him for the full responsibilities of practice, work patiently and systematically, read up his cases, record his experience and become conversant with current medical literature.

A poor college cannot make a man a physician, neither can it deprive him of his right to success if he but will, for in our profession all things succumb to intelligent hard work, and there is no high position gained without it.

For the sake of the student, for the good of the public, for the prosperity of the colleges themselves, we hope the time will come when one well-endowed, ably conducted college will in each state replace the three to a dozen schools that now exist; when it shall be of necessity an honor to be a professor, and a good thing to be a medical student.

There is much encouragement in the fact that many colleges now contemplate demanding further requirements for graduation, and the State Boards of Health are asking them. Let individual members of the profession take the matter in hand, then good schools will be aided and poor ones starved out.

We are not opposed to medical colleges; our work could scarcely advance without them. We would give the highest praise to the able accomplished teachers of medicine but where not only individual success, but the lives and health of thousands are at stake, we have a right to demand that a medical college shall be as good as it is possible to be, as thoroughly equipped and as exacting as science and money can make it.

WILLIAM PORTER.

THE NEXT MEETING OF THE ASSOCIATION OF AMERICAN MEDICAL EDITORS.

The following programme has been arranged for the meeting at Cincinnati, Monday evening preceding the meeting of the American Medical Association, May 1888:

Meeting called at 8 P. M.

Reading of minutes.

Presiden't address, Dr. William Porter, of St. Louis.

Report of Committee on Organization, Dr. McMurtry, Chairman, Danville, Ky.

Election of officers for ensuing year.

Extraordinary business.

Questions for consideration.

1. Is the multiplicity of medical journals an advantage to the profession? To be discussed by Drs. Crothers, Hartford; Sim, Memphis; Wile, Conn.; Love, St. Louis; Culbertson, Cincinnati; Cushing, Boston; Coomes, Louisville and Gray, Chicago.

2. How far do medical journals distributed by drug houses and manufacturers interfere with regular medical journalism? To be discussed by Drs. Reynolds, Louisville; Davis, Chicago; Shoemaker, Philadelphia; Bond, St. Louis; Connor, Detroit; Kiernan, Chicago; Thacker, Cincinnati and Fulton, St. Paul.

Members are requested to limit their remarks to fifteen minutes and if possible to ten. The place of meeting will be posted in all the hotels by the local committee.

Arrangements can be made at this meeting for a "press dinner" for another evening during the week, but it will be impossible to conclude the business of the Association and have the dinner the same evening.

DR. T. B. LESTER.

A familiar face will be seen no more. The tall active form, the well-worn silk hat and the long linen duster, will be missed when in a few weeks the State Association which he loved so much, calls us to the city of his home.

It is needless to say Dr. Lester was a good

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man, his countenance told you that; or that he was a learned physician, everybody knew that. The record of the man's life is his highest praise.

Dr. Lester was born in Virgina July 24, 1824, and died in Kansas City Fed. 24. 1888, and what a busy life filled in the interval. For 34 years he had cared for a large practice in the city that now mourns his loss, had gained a large fortune and what is better, had won and kept a place in the hearts of his patients.

He was highly honored by his fellows. For a dozen years the writer knew him intimately and never has he heard from any source a word derogatory to Dr. Lester or seen an act of his that was not manly, intelligent and right. He was strong yet kind, active yet careful of other rights, true yet unostentatious.

No man among the physicians of Missouri was more deeply loved; none could be more greatly missed.

WILLIAM PORTER.

CORRESPONDENCE.

ANTIPYRIN AS AN ANTIPYRETIC.

Dr. L. C. Armstrong, of Taylorville, Ills., writes: Some claim that antipyrin produces such great depression that they do not regard it as a safe remedy, and they no longer prescribe it in their practice.

I have used the drug a great deal during the past three years, and have never known it to fail to reduce the temperature from one to three degrees when given in doses of fifteen or twenty grains, twice a day to adults.

In one instance only have I noticed any undue depression follow its administration. This was a case of puerperal fever to which I was called in consultation. The patient was forty years of age and the mother of nine children. She had given birth, three weeks previous to the time I first saw her, and on the third day after labor was taken with a chill, followed by fever, suppression of lochial discharge and great tenderness over pelvic region. She had had a temperature of 105°F. every day for two weeks, and had, as we would expect, a decidedly low vitality to withstand full doses of any of the antipyretics.

In three hours after she had taken twenty grains of antipyrin, which caused a profuse perspiration, she complained of feeling faint, but she soon responded to stimulants and atropine. The same dose was given her at noon and 6 P. M., for many days after without producing any depression.

I think in giving antipyrin to patients of low vitality, it is advisable to accompany it with stimulants.

My experience with this drug, as a remedy for rheumatic and neuralgic pains is limited to a few cases, but it gave satisfactory results.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Feb. 18, 1888, the president, YOUNG H. BOND, M. D., in the chair. J. B. PRICHARD, Secretary.

DR. A. D. WILLIAMS read a paper on "Mushroom Parasites in the Ear; a new Remedy for the Same." See page.

DR. CHARLES BARCK.—I have had no experience with the new remedy in these cases, but I believe that every aurist will endorse everything else the doctor has stated. These aspergilli are relatively of frequent occurrence; we see them all the time. I have succeeded in all my cases by the usual remedies, that is alcohol—absolute alcohol by itself, or in combination with salicylic acid.

DR. ROB'T BARCLAY.—Physicians who treat otorrhea by the application of boracic acid, which is the usual application at the present day, frequently find aspergillus. Four things are necessary for the growth and development of aspergillus: first, the presence of the spores; second, a temperature of from 86° to 120°; third, a certain ground upon which they may grow, the terrin; and fourth,

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a certain amount of atmospheric air. The spores are present in the atmosphere everywhere. They are in every healthy ear. Often they form aspergillus fumigatus which occurs in the healthy ear. It is the only variety which will grow in a healthy ear, and it grows very often without symptoms. Strong alkaline solutions prevent the development of this fungus.

When pus is retained in the ear it decomposes, and becomes alkaline in reaction and this prevents the development of aspergillus, although the spores are present. Anything which will prevent decomposition and reduce the amount of moisture to the minimum, will favor the growth of aspergillus. Cerumen is a great protection against the disease. It is a mistake to remove a proper and healthy amount of cerumen from the walls of the canal. Surgeons should be careful in examing the ear, not to remove the epithelium, thus producing secretion.

It is a mooted question whether this fungus is a saprophite or a parasite. It is a saprophite if it feeds upon dead, decomposing material; a parasite if it feeds upon living tissues. It is not entirely a saprophite; it can not reach its highest development without some healthy living tissue; and if it were a parasite it would remain in the tissues and grow.

There is one variety of this fungus that grows upon cerumen, but it gives no symptoms and disappears with the removal of the cerumen. I have forgotten its name. It resembles the variety fumigatus. The use in the canal of oil or of an aqueous solution of an astringent which tends to produce serous discharges, will aggravate any tendency to the development of aspergillus; therefore any one who treats diseases of the ear should be extremely careful in the selection of his remedies, and guard against those which materially increase the secretion.

The aspergillus has been artificially cultivated by experimenters. Some one planted the aspergillus glaucus upon lemon peel and orange peel. In the orange peel he produced aspergillus nigricans, and on the lemon peel, aspergillus flavus. This shows that the terrin upon which it grows has something to do with the variety which is developed. The first case of aspergillus in the human ear was reported in 1844, quite a recent date, and the subject of aspergillus is still one which otologists are investigating. Alcohol, either by itself, or combined with salicylic acid, is a standard remedy, and is one that can be relied upon.

DR. D. V. DEAN.—I conclude from the description the doctor has given, and from his reference to the dark points, that this fungus he has represented is the aspergillus niger.

In speaking of varieties, I suppose he meant species, for the species are well defined. The conclusion of Grawitz, that the botanical and pathogenic characters of aspergilli and mucors are mere variations of one identical harmless species, modified by the nutritive material on which they grow, has been shown by Koch, Gaffky, Lichtheim, and others to be incorrect.

It lives in a temperature a little lower than the internal temperature of the human body, or about 34° to 35° C., or that of the external meatus; aspergillus fumigatus at 37° to 40°. I have seen quite a number of these cases, many of them in the practice of other physicians, who were specialists.

My observation has always been that the fungus was confined to unhealthy ears, and that has been the impression I have received from my reading on the subject and from my mycological studies. If the doctor is well satisfied from his own experience or otherwise, that they do occur in healthy ears, it is a point that he should prove positively. The serum of the blood happens to be about the best culture-medium we can get; therefore, if there is a wound upon the meatus or drumhead and the spores have access to it, they will multiply and produce mycelium. I suppose the previous treatment prevented its going on to condia-fructification in this case.

Aspergillus niger may also occur in the cornea, if the cornea is wounded; it may be inoculated even into the anterior chamber. I

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discovered a few years ago in cases such as the doctor spoke of, where I used oil with atropine (after Dr. Green's formula for the eye), in simple cataract that there was sometimes eczema. I found that some of the patients afterwards had aspergillus niger, or nigricans, as it is sometimes called; and I at first supposed it had something to do with the pain in the ear. The aspergillus does not fructify well in pus. I afterwards found on looking up the literature that when oil produces eczema in the external ear, the aspergillus often develops in the serous exudation.

Dr. Pollak.—I would like to inquire of Dr. Williams and Dr. Barclay whether they have used bichloride of mercury with alcohol, one grain to 500 for instance, in those cases. I have had very good results with that treatment.

Dr. Williams.—I have used it in water, but not in alcohol.

Dr. Barclay.—I have never used it in that form. I spoke of the danger of introducing these spores into the ear by the use of oil and aqueous solutions. One of these dangerous solutions is atropine which is used a great deal by ophthalmologists. Often decomposition takes place, and these germs and bacteria are found in these solutions. The fungus is introduced by means of instruments also. One can not be too careful in the introduction of these various things into the ear.

Dr. Charles Barck read a paper reporting some cases of rare injury to the eye. (See p. 259) In addition Dr. Barck reported a case as follows:

In this case I successfully removed a piece of iron from the vitreous, by means of an electro-magnet. The patient came to me, stating that about two hours before, while working with a hatchet, something had struck his eye. I found the following condition: In the lower quadrant of the cornea, there was a wound about one line long, apparently going through the whole cornea. Through the iris was an oblong hole. Behind this hole in the iris, the anterior lens capsule was somewhat opacified. This could be seen by illumination. After the pupil had been dilated to some degree by atropia, I examined with an ophthalmoscope. In the vitreous was seen a yellowish-white, round mass, somewhat movable, having a metallic reflex. I located it quite near the retina. I tried to fix in my mind the location of this foreign body as near as possible, and then proceeded to remove it. Under cocaine I made an incision with Von Graefe's iridectomy knife between the internal and inferior rectus muscles as near to the equator as possible. Then I introduced an electro-magnet. With the first introduction there was no result, but with the second there was a sharp click which was felt as well as heard, and I removed the piece of steel which I exhibit here, and which, you will observe, is quite large. The eye was then bandaged and the patient is doing well so far.

Dr. M. H. Post.—The interesting feature in the removal of those foreign bodies with the magnet, is that we may succeed in saving the eye. Before the magnet came into use for this purpose, the practice was to remove the eye. It was the only safe thing to do.

The wound made by this piece of steel in entering, is in a safe place; and the wound which the doctor made is in a safe region, and the foreign body is out. So that even if the disturbance caused by the presence of the piece of steel should ultimately destroy sight in the eye, the patient will have a globe which will be much better than any artificial eye.

Dr. Williams.—I would suggest that in a case of this kind the introduction of a second instrument might be avoided by simply connecting the electrical current to the knife with which the puncture is made; this would make a magnet of the knife to which the foreign body might at once adhere and thus save the trouble of inserting another instrument. This plan has been carried out several times by different physicians where a probe was used instead of an instrument of this kind. It should always be attempted when the wound is fresh, and even in older cases where the foreign body can be located.

I have never seen a case where the entire iris had disappeared, but I have frequently

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seen cases where a portion of the iris was absent. The German physicians call it "schwund der iris" and it results from a blow which completely paralyzes a portion of the iris. I do not think the iris is torn out, but it simply shrinks up so that it can not be seen. I have seen several cases of injury where it looked as if half, or a third, of the iris had been removed by iridectomy.

Dr. Barck.—What the Germans call "schwund der iris" is equivalent to the English atrophy; it is used very frequently in connection with the atrophy of the iris from paralysis of the nerves, the iris being still in its place; it is in connection with the ciliary body, and some of it can be seen. In the cases to which I referred the iris had either never existed or had entirely disappeared, and they were due to injury of the iris, or were congenital. These cases, especially the congenital ones are not frequent.

The electro-magnet was first used for this purpose about the year 1840, and later it was tried in several cases by Dr. Magee of Belfast. Knives or other instruments were magnetized to some degree by a large common magnet. Dr. Hirschberg of Berlin about 1880 or 1881 gave us this convenient form of an electro-magnet which I here present, and which is one hundred times stronger than the old form. There are a large number of cases reported in which foreign bodies have been removed from the eye by this means and the patients have retained not only the eyeball, but more or less sight.

I forgot to say that during the operation in this case not a drop of vitreous was lost. As the foreign body went through the lens a cataract may develop, and very probably will, but if so, it can be remedied later by a regular cataract operation.

Dr. Williams.—I did not refer to atrophy of the iris, but to the absolute disappearance of portions of the iris as the result of injuries, where no trace of the injured portion could be seen at all. That is what I understand is meant when the Germans refer to "schwund der iris."

Dr. Bond.—Some of the gentlemen present are no doubt, prepared to speak upon the subject of Dr. Barck's paper, injuries to the fingers.

Dr. I. N. Love.—There are few engaged in the general practice of medicine who are not called upon to treat injuries of the hand. I have seen a number of cases that impressed me with the necessity of care and conservatism in the treatment. Some years ago I saw exhibited in this society, a hand which had been amputated, and which was considerably mangled. It called out at that time expressions from some of the older surgeons, Dr. Hodgen, who is now dead, Dr. Gregory and others, who all pronounced in favor of conservative surgery, in these injuries. That was nearly ten years ago. Dr. Hodgen gave at that time the history of a case which I recollected as I had seen it, where all of the soft parts were mangled beyond recognition; where the vessels were all cut, where there was little except the tissues on the dorsum of the hand; where everything pointed toward the necessity of amputation; and yet with care, time, and conservatism, that hand was so far saved that it was a very useful member; much better than an artificial one. I remember the case of a boy who some years ago had his hand injured in a printing office; the hand was crushed almost beyond recognition. It certainly looked like a hopeless case; three of the fingers were torn, each into two or three pieces almost entirely separated from the hand. The main artery was intact, but it looked as if there was very little prospect of saving it or the fingers. But by careful dressing and attention, a tolerably perfect hand was secured; there was stiffness in some of the joints; one of the fingers was partially lost, but the result was certainly an argument in favor of conservatism in treating injuries of the hand. In these days of antiseptic surgery, we certainly have much to hope for from our efforts in this direction.

Dr. Lutz.—Cleanliness in these cases is of great importance. I want to refer to the care of tendons. It was my practice for a long time, (and it is the practice of many others even now) to sew up a wound in the hand or

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finger, put a proper bandage around it, using a proper dressing, without investigating whether or not any tendons had been wounded. I have time and again seen cases in which the cutaneous wound had healed by first intention, and the poor fellow who had been injured, found when the splint was taken off, that although the wound had healed properly, there was no use of the part; either the extensor or flexor tendons had been cut through, and had been left separated during the repair of the cutaneous wound. It is absolutely necessary to make a thorough examination of the hand which is wounded, in order to determine whether or not a tendon has been cut, and whether or not the sheath of the tendon has been opened. If the tendon is not injured but the sheath has been opened it has been my practice latterly to sew up, by means of fine catgut, the wound in the sheath. If the tendon is severed, it is proper to enlarge the wound in the sheath in such a manner that the ends of the tendon can be brought together by means of catgut. This I have done primarily, and in several cases secondarily. In one case I was obliged to sew up as many as three tendons, and had a gratifying result. I believe that tendonorrhaphy should be practised more frequently than it is. When primarily done, it is comparatively an easy operation, when secondarily, it is generally a difficult one.

I agree with Dr. Love that we should save every portion of the hand possible. The thumb or little finger, or any of the fingers is much better than the best artificial hand that has been invented.

Dr. Maughs.—I recollect that the first case of the use of antiseptics reported in this Society, was by Dr. Fairbrother in 1867. He mentioned a patient who had received an injury to the hand from a saw. The doctor dressed the wound, applying carbolic acid, and when he removed the dressing, fifteen days afterward, the wound was well. There had been no suppuration. I recollect that Drs. Gregory and Hodgen both spoke of the case as being quite remarkable, and they thought Dr. Fairbrother must be mistaken in his statement that there had been no formation of pus. Then Dr. Gregory reported a case at the following meeting in which he used carbolic acid, and the patient had died of lock-jaw, and it was questioned whether to prevent the formation of pus was not worse than to allow the wound to suppurate as the former treatment, might result in lock-jaw. I simply mention this to remind the younger gentlemen that their forefathers had no antiseptics to aid them.

During the war I was in the Confederate, army, as some of you know, and I wrote quite a lengthy and somewhat caustic article in which I advocated conservative surgery, and which was published in the *Richmond Medical Journal*. I criticized the practice of amputating limbs, which was very prevalent at the time, and this article called out quite a number of replies.

Dr. A. H. Meisenbach.—In uniting tendons it is often necessary to lay open the sheath so that we can reach the tendon and pull it down, and even when this is done, the operation is often a failure, as union by first intention will not always take place in the tendon. The proper suture is catgut.

There came to my office the other day a young man who was my patient years ago. I then resected the middle joint of the index finger and amputated the middle finger at the proximal joint. At the time I discharged him I thought that the finger would be practically useless, but I now find that it is movable in all directions, and that it retains a good deal of tensile force. The power of prehension is such that he can take up an object with a very firm grip. This indicates that where the flexor tendons of the hand are not injured, although the extensors are destroyed, the member ought to be saved.

I want to commend the formula proposed by Dr. Glasgow, which is a most excellent one—iodoform emulsion with linseed oil. I have used it extensively in cases of suppurative inflammation of the sheaths and tendons, and in abscess cavities, and I find it to be the best preparation of iodoform I have ever tried. I have now under treatment a man

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who is suffering from a diffuse suppurative inflammation of the posterior portion of the hand, induced by a slight scratch. I saw him five or six days after the injury, and his hand was then greatly swollen. He was beginning to cough, had fever and all symptoms of a severe inflammation. I applied poultices, and placed the hand at rest on a splint, and used a strong tincture of iodine, as there were no symptoms of suppuration—no fluctuation. No doubt there was pus somewhere but I could not detect it at any particular point; it came to suppuration finally. I made free openings and counter openings, and then injected the formula which Dr. Glasgow suggested, of iodoform in linseed oil, and there was a magical change. In two days the whole hand was in an aseptic condition, and the patient was progressing nicely. I think Dr. Glasgow has done the profession a great service in discovering this combination.

SELECTIONS.

REPORT OF EXAMINATION OF THE SLOUGH FROM THE LARYNX OF HIS IMPERIAL HIGHNESS THE CROWN PRINCE OF GERMANY.

On the morning of January 26, 1888, Dr. Wegener brought me a sealed box with a letter dated 23rd, from Dr. Schrader from San Remo. It was accompanied by a report, dated January 17th, from Dr. Krause respecting a large piece of tissue which had been expectorated on the same day from the larynx of H. I. H., The Crown prince.

The portion sent was the whole of the matter expectorated, with the exception of six small particles removed by Dr. Krause for examination in the fresh state. The piece of tissue was in a sealed bottle containing absolute alcohol. In addition to the large portion referred to, there were also two other separate and somewhat harder pieces—a larger and a smaller. The former, according to Dr. Krause, was originally a part of the principal mass. The examination offered great difficulties, the nature of which could not have been anticipated, either from the form or the appearance of the pieces submitted for investigation.

The large mass greatly resembled certain portions of imperfectly masticated pieces of meat, which are sometimes rejected in vomiting after being swallowed. This view seemed to derive support from the presence here and there of small yellow and brownish particles of fine cellular vegetable structure, and from the existence in the innermost portion of the large piece (expectorated) of an abundace of elastic fibers.

In consideration, however, of the very precise information conveyed by Dr. Krause to the effect that the substance had been observed before its separation (from the larynx) extending from beneath the left ventricular band from the middle to the anterior angle, and also below the glottis, and even extending round below the anterior part of the right vocal cord, there could be no doubt, on further examination, that we had to deal with a large slough spontaneously separated from the inner surface of the larynx, and not with a purely exudative fibrinous, mass.

In the substance which, according to the report of Dr. Krause, when first expectorated, measured 3½ centimeters in length, whilst at the thinner end it was half a centimeter in width (its thickness being 4 millimeters), and at the thicker end one centimeter wide, a small smooth semicircular spot in the long diameter of the substance could be seen. All the rest of the surface was occupied by long and very closely arranged fibers. Although there was no epithelium on the smooth spot, and no glands beneath it, it cannot be doubted that this was the free surface of the mucous membrane. For beneath it could be seen microscopically a thin layer of almost homogeneous connective tissue, and a great mass of elastic fibers. Beneath this, there was, deeper down, a very thick layer, consisting especially of tubules with granular amorphous contents. From this thick layer originated the long fibers observed with the naked eye. It was not once possible to recognize in these tubular layers any transverse stripes, but they seemed to contain only amorphous matter, in

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which, on more minute examination, numerous micrococci were found. Here and there numerous but very small clear brown bodies, or crystal-like deposits, were observed. Nevertheless, I have no doubt that these tubular layers and fibers are primitive muscular fasciculi which, through a necrotic process, have been destroyed.

The slough must therefore be regarded as a necrotic and decomposed part of the larynx, which in parts has been separated from the surface to a depth of 4 millimeters. The very rich muscular structure could only be attributed to the thyro-arytenoid muscle.

I could not determine what kind of morbid process had caused the gangrene, nor what kind of process had produced the demarcation and exfoliation of the substance. Neither pus corpuscles nor granulation-cells could be distinguished; and, in fact, in most places there was nothing of a heterogeneous nature to be discovered. Only in the larger (of the two smaller pieces) which had been cut off the main mass by Dr. Krause from a somewhat hard spot, and which had the form of a flat wart on section, with the naked eye a central whiter and an external and opaque rather thick covering could be distinguished.

In every microscopic section so-called nests (*zwiebeln*) of epidermoidal cells, for the most part of homogeneous character, were seen. As a rule these nest cells were in the most external layer, or in that lying immediately beneath it. The external layer had also most likely consisted of an epidermoidal formation, though these cells could only be here and there partially distinguished.

I could not find epidermoidal cells in the deep parts, and distinctly isolated alveoli were nowhere to be discovered, in spite of assiduous researches.

These examinations will be continued, and if any further result is obtained I will send a report instantly.

(Signed) RUDOLPH VIRCHOW.
Director of the Pathological Institute, Berlin.
January 29, 1888.

We are informed by Sir Morell Mackenzie, who has forwarded the above translation to us, that Professor Virchow has since sent several private letters, in which, however, he has not been able to add anything to his original report. Nevertheless, he remarks that he has not found any cartilage in any portion of the slough.—*British Med. Journal.*

THE VALUE OF WALL-PAPER GUARANTEES.

In an article published in the *Boston Medical and Surgical Journal* March 1st 1888. Dr. Charles Harrington gives the result of his investigation of the question as to what degree of reliability may be placed on the testimony of paper manufacturers, or dealers, as to the absense of arsenic in their manufactured fabrics. He says:

To this question it may be answered that the degree of reliability of such testimony depends greatly upon the character of the person or firm giving it, upon the character and ability of the chemists employed for the analysis, and upon the amount of mental reservation which may be made at the time of sale.

To show that reliable dealers at times have great difficulty in getting guarantees that secure them against loss, he cites the following instance: Some months ago a well known Boston house imported from England under a "manufacturer's guarantee" a large lot of expensive papers, samples of which, on arrival of the goods, were submitted to him for analysis, with the result that eight of the papers were condemned. Upon this the manufacturers were notified that the paper must be taken back; but they replied by sending the dealer a copy of a report of an analytical examination of eight samples of the paper referred to, by the well known chemist, Prof. John Attfield. This report read as follows:

"Not one of these samples is an arsenical wall paper, that is to say not one of the pigments or color-giving substances on the papers is arsenical, and the paper itself of these paper-hangings is not arsenical.

Pseudo-sanitarians sometimes report non-arsenical wall-papers as containing some ridiculously minute trace of arsenic. These

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alarmists might just as truly report some samples of common table salt as containing arsenic, for the delicacy of certain of the tests for arsenic is so great that traces can be detected in many things. But such traces are absolutely without significance from any sanitary point of view, either in salt, wall-paper, or anything else. Arsenical wall-papers have well-defined arsenical characters, were formerly common, and may now occasionally be met with. Neither of these samples is an arsenical wall-paper."

A second examination by Dr. Harrington condemned the papers again, and in order to clear up the matter of accuracy he forwarded samples of the papers in question to Professor Henry B. Hill, Professor of Chemistry, Harvard College, Cambridge, and to Dr. Charles R. Sanger, Professor of Chemistry in the United States Naval Academy, at Annapolis, Maryland, with requests for quantitative estimation of the arsenic, if any were found to be present; at the same time undertaking the same estimation himself.

In the following table may be seen the results of all the chemists concerned:

Name of paper.	Manufacturer's No.	Amount of Arsenic in grs. per sq. yd.			
		Hill	Sanger	Harrington	Attfield
Chatsworth talc	60,156	4.66	4.08	4.40	0.00
Brandon	60,063	0.85	0.73	0.90	0.00
Malines	60,144	0.93	0.73	0.82	0.00
Iberia	60,500	0.63	0.71	0.78	0.00
Coniston, blue	60,474	0.21	0.23	0.28	0.00
Monkshood	60,344	0.12	0.04	0.14	0.00
Wentworth, on white	58,172	0.10	0.08	0.13	0.00
Wentworth, on yellow	58,172	0.21	0.22	0.22	0.00

It is, it must be conceded, somewhat remarkable if the papers are non-arsenical that the results of the three American chemists should bear such a close resemblance. The results are not in absolute agreement, it is true, but the slight differences are doubtless due in part to the fact that the papers are figured, and in part to the universally recognized possibility of chemical fallibility.

It is interesting to note that all of these papers contain more than the permissible limit recommended to the National Health Society of England by its committee, which was composed of men whom we in America recognize as true sanitarians—Professor. F. de Chaumont, H. C. Bartlett and Charles Heisch.

On Salol and its Uses in Diarrhea.—Dr. Joseph Eichberg in an article recently published (*Cincinnati Lancet-Clinic*) says there has been a remarkable change in our materia medica and therapeutics in the past five years; a change in which organic products, derived either directly or indirectly from the radicals or bases, phenol and naphthol have been substituted for many old and established remedies. These new drugs are of a more definite strength than fluid extracts or tinctures.

Among them we have resorcin, naphthalin, antipyrin, salol, kairin, and thallin. Of these, salol, introduced by Prof. Necnki, of Berne, has scarcely received as much attention as other members of this class.

This compound, as is well known, consists of 40 per cent. carbolic and 60 per cent. salicylic acid, and is decomposed into its components by the action of the pancreatic ferment. Now, pure carbolic acid has been frequently —too frequently perhaps—shown to be inapplicable as a remedial agent, owing to its violent toxic properties; and the new remedy afforded an apparently easy and harmless way of introducing into the body, at one and the same time, two acids, both of which were powerful antiseptics.

The internal administration of salol is certainly devoid of many of the objections that may justly be urged against the salicylic acid. It is well borne by the stomach, is tasteless and devoid of odor, readily administered in water, and but seldom gives rise to the troublesome tinnitus that constitutes one of the drawbacks to salicylic acid. The price is reasonable, being, in Germany, about 80 cents an ounce; here it is sold in wholesale houses at 40 cents an ounce. The amount required for daily administration corresponds pretty closely with the average dose of salicylic acid, varying

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from 15 to 30 grains, administered three or four times a day.

Chemically, it is the salicylate of phenol ether, insoluble in water, soluble in ether, benzine, alcohol, fatty oils, etc. It liquefies at a temperature of 110° F., and in this condition is colorless, resembles an oily substance, and soon solidifies.

It is eliminated from the body very largely by the kidneys, the urine assuming, however, the characteristic appearance and reaction of carbolic acid urines, being dark-green or almost black in color. Its reaction remains acid, it is free from albumen, and it deposits no sediment. The characteristic alteration in the color of the urine is manifest after a single dose of ten grains, and persists for a long time, so that when salol has been given for some time, the color of the urine remains black five days or more after the remedy has been discontinued, showing that it accumulates in the system and is eliminated very slowly. The salicylic acid of its composition appears first as salicylic acid, the carbolic acid being responsible for the changed color of the fluid.

During the summer I employed the drug in a number of cases in which diarrhea was, at one time or another, a prominent symptom. As will be seen, this symptom depended on most diverse conditions, as tubercular ulceration, dysentery, enteritis, or the simple diarrhea resulting from errors of diet. The report embraces fourteen cases, of which two were cases of dysentery, four of diarrhea, one of loose bowels accompanying chronic gastritis, four of phthisis with diarrhea, one of enteritis, one of tertiary syphilis, one of diarrhea with subacute Bright's disease. An examination of the histories attached to this paper brings out clearly the fact that salol, while of some service in diarrhea arising from almost any cause, cannot be relied upon with the same firm faith with which we administer the preparations of opium. It seems to act promptly enough, especially in the simple forms of bowel trouble; but the antiseptic effect seems to pass off with some rapidity, so that it often becomes necessary later on to resort to other remedies. The weight of this experience, therefore, is rather against than for its use.

CARDIOCENTESIS.—Dr. I. Bruhl, of Paris, has given a history of the operation of cardiocentesis, with reports of cases in which this operation has been performed, and a general summary of the present condition of the question (*Le Progres Medical*, Nos. 52 and 53, 1887). M. Bruhl states, correctly, that the mode in which puncture and aspiration of the heart acts is a double one. First of all, it does exactly what bleeding would do, but it has the advantage that it withdraws blood from the venous circulation after the heart has stopped beating, or is beating so feebly that there could be no blood drawn from the veins. In the second place, the puncture of the heart by the needle acts as a stimulus to the heart-muscle. Cases have been reported in which the heart has been stimulated after its apparent paralysis.

M. Bruhl's conclusions, which, it must be remembered, are based more on a study of the literature than on practical experience, are: That cardiocentesis is practicable, and, in most cases, is not dangerous. M. Rendu, however, is cited as stating that "a wound of the heart is so great a responsibility to assume that one should avoid it at any price." Such a caution may be wisely kept in mind, though numerous facts attest the harmlessness of puncturing the heart with needles.

In order to puncture the right auricle, the aspirating needle is to be passed into the third intercostal space, close to the right edge of the sternum.

To puncture the left ventricle, the needle should enter the fourth intercostal space, near the left edge of the sternum. The puncture of the ventricle is, as M. Bruhl correctly states, preferable to that of the auricle.

The indications are naturally a paralysis or paresis of the heart, with dilatation and over distention of its cavity.—*Med Record.*

COCAINE IN THE TREATMENT OF DISEASES OF THE SKIN.—S. Lustgarten reports to the

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Wiener med. Wochenschrift that in Prof. Kaposi's clinic for skin diseases, painting with a two per cent. solution of cocaine has been found effective in diminishing the itching of acute and subacute eczemas. In eczemas of the genitalia and of the buttock, a two to five per cent. ointment of cocaine in lanoline proved itself particularly useful. In pruritus ani, suppositories, each containing three-fourths grain of oleate of cocaine,are empolyed in addition. It has also been used for the following purposes: in a one per cent. ointment for painful abrasions of any kind; in two per cent. watery solution to paint upon granulations which are to be touched with nitrate of silver; and also as an injectien into the urethra in painful erections, chordee, etc., in the course of gonorrhea. It has also been used with a two per cent. soiution of carbolic acid, in the form of hypodermic injections, in order to produce local anesthesia for minor operations, such as extirpation of epithelioma, circumcision, and the like. In the same way it suffices for making painless hypodermic injections of calomel, for which purpose the needle of the instrument should be allowed to remain in the tissue while the barrel is removed to be filled with the calomel mixture. Arsenic injections can be made in the same way. If these substances were added directly to the cocaine solution, decomposition would occur. Daily use of cocaine in calomel injections the author regards as inadvisable, on account of the danger of inducing toxic effects. In some few cases the author observed palpitation of the heart, and general indisposition, tremor of all the extremities, and once even an epileptiform attack, from the hypodermic use of three-fourths of a grain of cocaine.

Case of Severe Post-Partum Hemorrhage Successfully Treated by Intra-Venous Injection of Saline Fluid.—Blagdon Richards, says (*London Lancet*), on December 19, 1887, I attended Mrs. H., aged thirty-four, in her eighth confinement. There was a history to the effect that on previous occasions difficulty had been experienced in the removal of the placenta. The child was born at 6.30 A.M., and as attempts to express the placenta, *secundum artem*, failed, I removed it with the hand; but upon examination calcareous degeneration of the placenta was observed, aud it was evident that a portion remained still adherent to the uterus. The hemorrhage was continuous, and the uterus would not respond sufficiently to manual stimulus to justify the hope that the patient might recover without some further assistance. The pulse was now almost imperceptible, the woman blanched, restless, but conscious. Brandy and ergot were administered at short intervals in small doses, and I telegraphed to Mr. Jennings to bring his transfusion apparatus. Upon his arrival Mr. Jennings concurred with me that the remains of the placenta should be extracted from the uterus, which was effected, stupor having been induced by the inhalation of a little choloroform to facilitate the procedure. The uterus being now quite empty, the organ was packed with small lumps of ice, and manual pressure upon its fundus entrusted to the nurse. It was now observed that the pulse was small and very quick, but its frequency was not noted. Great thirst was complained of, and we thought that the condition of the patient indicated the necessity for intra-venous injection of fluid. Sixteen ounces of saline fluid (temperature 98° F.) were accordingly injected, about noon, into the cephalic vein of the right arm. Signs of increased animation were coincident with the intra-venous injection, and the feeling of thirst considerable lessened. The frequency of the pulse was reduced to 100, and its character approached the normal. This patient has made an uninterrupted recovery.

Case of Maggots in the Ear.—Wm. J. Pilley, L.R.C.P. London., M.R.C.S. says (*London Lancet*),M.R., a domestic servant recently arrived in the colony, awoke on Oct 31st feeling pain in the left ear. The pain steadily increased, although she applied poultices. Three days later she consulted me, complaining of intense pain in the left ear. On introducing a speculum moving white bodies could

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be seen. The ear was syringed, with the result that three maggots (larvæ of the common blow-fly) were removed. On again examining the canal with a speculum the sides were found to be slightly injected, as also was the membrane. Iodoform was blown into the ear, after which all symptoms soon disappeared.

I am not aware whether this kind of case is rare or otherwise, but can quite imagine how easy it is for the eggs of the blow-fly to become deposited in the ear during sleep in a country so infested with flies as is Queensland.

[During the year ending September 30, 1887, there were four cases of maggots in the External Aud. Canal reported at the Manhattan Eye and Ear Hospital New York. They were diagnosed as cases of eczema, as it was assumed that this condition existed at the time the eggs of the blow-fly were deposited. In two of the cases the canal was literally filled with live maggots. In one case forty-five were removed.

The histories of the four cases were the same. They had been beastly drunk and lay for some time in the open air

The ears were cleansed with a syringe.]

Large Doses of Olive-oil in the Treatment of Hepatic Colic.—Dr. J. Touatre, of New Orleans ("Arch. roumaines de méd. et de chir.", "Lancet"), gives an interesting account of his own cure of biliary colic and gall-stones. The method of procedure was as follows: At seven in the evening a blue pill of the weight of 2½ grains was taken, and this was followed twelve hours later by a draught of twelve tablespoonfuls of olive-oil: a quarter of an hour later a similar dose of olive-oil was taken, and then the patient addressed himself to sleep on his right side. At nine o'clock the blue pill acted, producing a copious bilious evacuation, but no gall-stones were passed. At three o'clock in the afternoon there was another bilious stool without stones, but from seven in the evening till midnight six stools were passed; the first two contained seventeen calculi of the size of a large pea, of conical shape, grayish-yellow aspect, and soft consistence. Altogether sixty stones were passed, and six of these had the volume of an olive, and were of a black color. The passage of these calculi by the cystic and biliary canals was for the most part unattended with pain, a few spasms being felt, probably at the time of the movement of the large calculi. An inexpressible relief was obtained from the pains over the liver and shoulder, which had previously caused much distress; the liver also diminished in size. For three months Dr. Touatre enjoyed perfect health, when the trouble began again; the olive-oil was repeated in similar fashion, and with the result that eighteen more calculi were discharged by the bowel. Since then he has enjoyed excellent health. He admits that some courage is required to swallow the large doses of olive-oil.—*N. Y. Med. Jour.*

The Use of Water at Meals—Opinions differ as to the effect of the free ingestion of water at meal times, but the view most generally recived is probably that it dilutes the gastric juice and so retards digestion. Apart from the fact that a moderate delay in the process is by no means a disadvantage, as Sir William Roberts has shown in his explanation of the popularity of tea and coffee, it is more than doubtful whether any such effect is in reality produced. When ingested during meals, water may do good by washing out the digested food and by exposing the undigested part more thoroughly to the action of the digestive ferments. Pepsin is a catalyptic body, and a given quantity will work almost indefinitely provided the peptones are removed as they are formed. The good effects of water, drunk freely before meals, has, however, another beneficial result—it washes away the mucus which is secreted by the mucous membrane during the intervals of repose, and favors peristalsis of the whole alimentary tract. The membrane thus cleansed is in a much better condition to receive food and convert it into soluble compounds. The accumulation of mucus is specially well marked

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in the morning, when the gastric walls are covered with a thick, tenacious layer. Food entering the stomach at this time will become covered with this tenacious coating, which for a time protects it from the action of the gastric ferments, and so retards digestion. The tubular contracted stomach, with its puckered mucous lining and viscid contents, a normal condition in the morning before breakfast, is not suitable to receive food. Exercise before partaking of a meal stimulates the circulation of the blood and facilitates the flow of blood through the vessels. A glass of water washes out the mucus, partially distends the stomach, wakes up peristalsis, and prepares the alimentary canal for the morning meal. Observation has shown that non-irritating liquids pass directly through the "tubular" stomach, and even if food be present they only mix with it to a slight extent. According to Dr. Leuf, who has made this subject a special study, cold water should be given to persons who have sufficient vitality to react, and hot water to the others. In chronic gastric catarrh it is extremely beneficial to drink warm or hot water before meals, and salt is said in most cases to add to the goode ffect produced.—*Brit. Med. Jonr.*

—In the *American Journal of Dental Science*, Dr. T. H. Dipscomb describes an advertising dentist thus. "He is not a modest man for he does not hide his light under a bushel; he is not a contented man, for he publishes to the world that a generous public has not awarded him his due share of employment; he is not an upright man, for he disregards the ethics of the profession; he is an unprincipled man, for, he tries to raise his own status by belittleing the standing of his fellow-practitioners; he is an arrogant man, for he knows it all; he is a conceited man, for he judges others by his own standard; he is a selfish man, for his whole soul is wrapped up in self, and to him the almighty dollar attracts every spark of honorable merit; and he is a dishonest man, for he promises results which he knows cannot be attained, thereby obtaining money under false pretenses." The above applies equally to an advertising doctor. —[*American Lancet.*]

Boracic Acid in Chronic Suppuration of Middle Ear.—The conclusions arrived at in the employment of boracic acid in chronic suppuration of the middle ear at Prof. Seely's Clinic, are as follows:

1. Only a pure and absolutely impalpable powder should be employed.

2. The large majority of these cases get well by simple cleanliness, and keeping the ear in as dry a condition as possible.

3. Boracic acid used by packing the meatus more nearly accomplishes this than when used by inflation.

4. If the powder remains dry, the ear may be inflated occasionally to determine the condition of the middle ear, whether dry or moist.

5. If employed in this manner the boric powder is not only safe, but efficient in many obstinate cases.

6. We can not tell definitely beforehand in what class of cases it will yield good results, unless it would be in those cases where the tympanitic cavity is filled with exuberant granulation. It can be said with all sincerity and safty that little fears need be entertained from the packing of the meatus with boracic acid in chronic purulent inflammation, if the physician inflates the ears daily. The air rushing through the perforation leaves a vent for the pus, if any has accumulated, or it can escape through the Eustachian tube into the mouth.—*Cin. Lancet Clinic.*

Physicians as Drinkers.—The editor of the *Journal of Inebriety* says; "We have received a paper for publication in this journal from a very excellent but mistaken clergyman. The central idea of the paper is that a large part of the inebriety of the present time is due to a careless use of alcohol in the sick room, and the use of alcohol as a remedy. This he believes to be true, from the fact that a large number of physicians were intoxicated at the banquet at the International Congress at Washington. He argues

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from this that physicians are not temperance men, and that the great need is for work among them. He offers very kindly to give us material aid if we will concentrate our work to the spread of teetotalism among medical men. In answer to our inquiry of how he ascertained the number of intoxicated persons at the banquet, he answered his brother was present and gave him the facts. Our personal observations at this banquet indicated a different conclusion. A specialist of similar views joined us in a careful scrutiny of the three thousand physicians who were at this banquet, where wine and other spirits were free as water. In all that company only one man was visibly intoxicated. A half a dozen or more were exhilarated, and showed the transcient excitement of wine. A dozen more had marks of being inebriates, but seemed to be abstaining at that time. It was clearly evident that the American physician as seen at this place was far more temperate as a class than the average man in other callings of life. We conclude that a mistake has been made, and the publication of this paper, or a crusade among medical men, will be impracticable at this time. We would assure our correspondent, while it is true the thoughtless use of spirits in the sick room often does great injury, and many physicians are inebriates, yet these are small factors in the great chain of causes of inebriates and inebriety."

CONTEMPT OF COURT.—Of all the curious reading that we have enjoyed in some time, we think that afforded by a communication from Dr. F. E. Stewart to the current number of the *Druggists' Circular* certainly caps the climax. It affords a splendid illustration of the wisdom of the adage which advises the shoemaker to stick to his last. Whenever a physician strays from his own profession into the intricacies of the law, and especially of the patent laws of this country, his feet are on dangerous and slippery ground, no matter where his head or heart may be. In the present paper, Dr. Stewart attacks the recent decision of the United States District Court in the matter of the suit of Battle & Co. against the Grosses (Daniel W. and Edward Z.) for infringement of their copyright of Bromidia. He declares that the decision is not final or binding, and advises the Grosses and druggists generally not to pay any attention to it. Dr. Stewart thus puts himself in contempt of the United States Courts and advises others to place themselves in the same foolish and dangerous predicament. The queer part of the matter, however, is that every reason which he advances against the validity and justice of the decision is the strongest possible argument in its favor, and the reader must be obtuse indeed not to see that it is so. This view of it was evidently taken by the editor of the *Circular*, who says: "While giving Dr. Stewart's argument publicity on account of its novelty, we think it proper to remind pharmacists that they are bound by the decision so long as it is allowed to stand"—which advice is good, sound sense, like pretty much everything that emanates from the editor of the journal quoted.—*St. Louis Medical and Surgical Journal*, January 1888.

IN THE January number of the "American Journal of Obstetrics," Dr. F. E. Beckwith, of New Haven, gives an account of the case of an unmarried women, 70 years old, who was admitted into the New Haven Hospital last June, in a very weak condition from long-continued diarrhea and tenesmus. In a few days the nurse saw a foreign body within the vagina, and the patient was transferred to the gynecological service, where Dr. Beckwith found that the foreign body was a plug of coarse cotton or woolen stuff contained within a shell of calcareous deposit, the whole amount to several ounces, and giving out an abominable odor. Free hemorrhage attended attempts at its removal, so that the poor creature had to be relieved of her plug at different sittings. The neck of the uterus and the vault of the vagina were then found to be in a state of cancerous degeneration, and the patient shortly died of progressive asthenia. It was ascertained that the tampon was inserted by a midwife in Germany twentynine years be-

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fore, and that the patient did not again report to her or consult a physician. The mass must speedily have become offensive, and it is not easy to understand how the patient could have remained ignorant of its presence; yet such things do happen now and then, and they teach the lesson that nothing of the sort should ever be left in the vagina without something projecting externally to call attention to its existence—*New. York. Med. Journal.*

COMMUNICATION OF SYPHILIS THROUGH THE SALIVA.—In his recent work on the diseases of the nervous system, Von Ziemssen says syphilis has been repeatedly communicated by the saliva in the act of tattooing, by reason of it being employed by the operator in moistening the pigments employed. Reports of infection in this way have recently come up from various sources.

It has been commonly believed that syphilis can not be communicated through the saliva, milk, or other physiological secretions. It may be in the cases referred to that there are mucous patches in the mouth whose secretion furnishes the infectious element; at the same time the scientific course is to await the settlement of the question by careful experiment.

EXPERIMENTE ON PERISTALSIS AND THE ACTION OF VARIOUS LAXATIVES.—An interesting account of a series of experiments made upon dogs with reference to the peristaltic movement of the bowels and the actual effect of various laxatives and cathartics appeared in the *Deutsches Archiv f. Klinisches Medicin* vol. v, 1887). The experiments were conducted by Dr. Julius Hess, according to Tappeiner's method. As this method is both original and exact, a short explanation of it will not be amiss.

An artificial fistula should be made in the stomach in such a way that the opening should only be a few centimetres from the pylorus. It will now be easy, in a dog operated upon in this manner, to pass a rubber balloon or bulb, which should be moderately inflated (twenty to thirty cubic centimeters), through the pylorus and into the duodenum. The rubber bulb should be attached to small rubber tube. This tube should be long and divided into centimeters or inches. After the empty bulb has been inserted into the duodenum, a certain amount of water should be introduced into it by means of the rubber tube. It will now be observed, after a sufficient quantity of water has been injected, that the rubber tube is gradually being drawn into the opening of the fistula; this, of course. is due to peristalsis. Now the movement of the bulb in the bowels may be carefully watched by observing the metrical divisions on the rubber tube. This mode of procedure does not allow the experimenter to study the peristaltic movement, but by inflating the bulb, and so causing a temporary obstruction, one portion of the bowels may be isolated from another. Further also the strength of the peristaltic movement can be accurately determined by letting the rubber tube pass over a small wheel or pulley and hanging weights on the end of it.

By carefully adhering to the above method Dr. Hess's experiments resulted in the following important discoveries:

1. The peristaltic movement does not usually begin at the pylorus, but somewhat farther down. In the colon the movement is slower than in the small bowel, and at night is much slower than during the day, indeed, ceases almost entirely.

2. Sodium sulphate, castor oil, senna leaves, and croton oil all increase the peristaltic movement. The last-named drug also increases the strength of peristalsis.

In order to still further ascertain the exact action of various laxatives, they were given to the animal in such doses as would insure diarrhea. The drugs were always administered through the fistula of the stomach and injected directly into the bowels. The proper dose being determined, the animal was given several days' rest. Then the rubber bulb was again inserted and allowed to pass down to a certain part of the bowels, and then inflated so as to isolate the bowel below the bulb; the rubber tube was then fastened on the outside

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so as to prevent the bulb from slipping. Then various drugs were administered in doses which had previously caused diarrhea, but now no diarrhea was observed, although the drugs were given ample time to act. The bulb was then allowed to collapse, and immediately, in almost every case, diarrhea set in. The author therefore concludes that these drugs act directly upon the mucous membrane of the bowels as they come in contact with it, and that as long as they do not come in contact with any portion of the bowels the peristalsis of that portion was not affected. The drugs experimented with in this case were sodium sulphate, castor oil, calomel, senna, croton oil, colocynth pulp, and gallic acid.—*Therapeutic Gazette.*

Persistent Vomiting of Pregnancy Healed by Alimentation Through an Œsophageal Tube.—Brünniche reports the history of a single woman, menstruating irregularly, who came to the hospital suffering, for two months past, with serious gastric trouble. An ulcer of the stomach having been diagnosticated, the possibility of pregnancy was set aside. Shortly after the patient was admitted, the vomiting became so severe that all nourishment was rejected, and she was in danger of starvation. Alimentation by means of an esophageal tube was resorted to, and the injection of broth, followed by cold water before the tube was withdrawn, was the first nourishment which the patient took without vomiting. She was then given milk, and, as the vomiting did not recur, she was given broth with the same result After five days she was allowed to swallow a little food, but the nausea and vomiting having recurred, the use of the tube again became necessary. Pregnancy was then easily diagnosed In the course of three weeks the tube was no longer necessary, and the woman, having meanwhile been delivered, was cured.

The significant feature of this case is that it was only necessary to introduce the tube into the opening of the œsophagus, which shows that the location of the sensitive region, whose irritability caused the vomiting, was situated in this digestive canal above the stomach.—*Centralblatt fur Gynækologie.*

Cocaine in Parturition.—In parturition, cocaine has been used in various ways, and consequently with very diverse results.

Dr. Corner has used suppositories containing three grains each of cocaine, and has found great relief experienced in those cases undergoing the agonizing pains common to the latter part of the first, and beginning of the second stages of labor. He has also used them in cases of primiparæ with happy results.

Hartshorne uses cocaine as follows: By means of an ordinary glass syringe, a compound composed of six parts of cocaine, twenty-four of vaseline, and twenty of glycerine, is injected as high up the vagina as possible. By this means, the cocaine is applied to all parts of the vagina, insuring a more lasting effect than when applied in solution. The pain due to pressure, the dilatation of the cervix, and the expansion of the perineum is so markedly relieved by this means, that an ordinary labor is deprived of half its agony.—*The Medical Analectic*, Feb. 16, 1888.

Injection of Lime-Juice in Epistaxis.—The remedies for epistaxis are numerous and varied but many of them are not as efficacious as might be wished. Perchloride of iron and ergot have been the remedies principally employed. Dr. Geneuil writes to the *Bulletin Général de Thérapeutique* of November 30, 1887, of a novel way in which he has been treating this ailment. He employs injections of fresh lime- or lemon juice. For this purpose he uses a small glass urethral syringe, and uses its entire contents for one injection. In about two minutes the blood ceases to flow. Should this, however, not be the case a second injection may be given, but one is almost invariably sufficient. Dr. Geneuil does not think that this action is due to the presence of citric acid in the lime-juice, as injections of that acid failed to produce simi

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lar results in two cases where a single injection of lime juice acted immediately.

BOOK REVIEWS.

THE RULES OF ASEPTIC AND ANTISEPTIC SURGERY. A practical treatise for the use of students and the general practitioner, illustrated with two hundred and forty-eight engravings, and three chromo-lithographic plates, by Arpad G. Gerster, M. D. Professor of surgery at the New York Polyclinic; visiting surgeon to Mt. Sinai Hospital, and the German Hospital. New York; D. Appleton & Co. New York. (J. H. Chambers, & Co., St. Louis, Mo.)

This is a most excellent work, preeminently practical, a clear and candid exposition of the existing status of antiseptic surgery; or in other words, Listerian principles as at present adopted.

The author's work shows him to be a man of originality of thought, and a good common-sense practical worker in a field full of satisfactory results.

There is no attempt upon his part, at an exhaustive and complete treatise on surgery, but he gives his readers practical points on such cases as are most frequently met with in the practice of the general surgeon.

As a writer, he is manly, frank, strong, vigorous and scientific. Verbosity is ignored. He employs easy common-sense expressions whenever and wherever he can.

The reading matter; the arrangement of subjects and the illustrations are all fresh; no ancient padding, no monotonous obsolete illustrations mar the appearance of its pages. It is new, sparkling and interesting from preface to finis, and to our conception it is a timely, original and practical work, a clear exposition of the best elements of aseptic and antiseptic surgery.

In these days when voluminous hand-books and encyclopedias are so slowly published as to be antiquated before their completion; when in order to give quantity many articles written by the editor's friends are insipidity itself, and we have to pay a goodly price for emanations from a weakling's brain, for one good article you have to wade through pages of copied inanities and vaporings.

Now this work of Gerster as it stands, will be of absolute value to the practical worker. Its pithy, pointed, clear directions and suggestions, its veritable symphony of detail make it preeminently the book of this year and we only wish that other authors would write about what they have done and what they know as regards results, and not devote themselves to hypothetical and theoretical subjects.

What if Gerster gives you the bi-play of a safety-pin or the arrangement of rubber cloths in an operation? these are in a practical direction.

The arrangement of the subjects discussed is excellent, and upon the whole it is an original and suggestive work and we are so well pleased with it that we have no desire to criticise.

Probably the author desirous of avoiding verbosity, has now and then in consequence of the paucity of words made his subject a little dull. But it is a good book. O.

Messrs. Parke, Davis & Co., have issued a faithful reproduction of an excellent lithograph of Dr. Morell MacKenzie.

This enterprising firm have taken a winning method of commanding the attention of the profession, and from the hitherto unadorned walls of many an office, the grave earnest features if Koch, Pasteur and MacKenzie look down in silent approval of the good work of the physician; all through the kindness of Parke, Davis & Co.

We are in receipt of the second circular of the Chicago Polyclinic. This institution seems to be well founded and has a staff of well known physicians.

Special courses are given and daily instruction in clinics.

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REPORT ON PROGRESS.

DERMATOLOGY.

BY W. G. MOORE, M. D.

I. FUNCTIONAL DERANGEMENTS OF THE SWEAT GLANDS.

II. CUTANEOUS DISEASES INDUCED BY MENTAL EMOTION.

III. SYPHILITIC ERUPTION WITH CHANCRE ON THE TONSIL.

FUNCTIONAL DERANGEMENTS OF THE SWEAT GLANDS, ESPECIALLY HYPERIDROSIS AND BROMIDROSIS.

Few conditions so entirely devoid of danger give so much annoyance to the subjects thereof as the functional affections known as hyperidrosis and bromidrosis. The two may exist in the same patient coincidently, as when hyperidrosis (excessive sweating) takes on an offensive odor, thus becoming bromidrosis.

The etiology of these affections has been the subject of much discussion, but I think it is now pretty generally conceded that they have their origin in atonic conditions of the vaso-motor nervous system. Whether it be due to paralysis of certain sweat centers situated in the brain, as Mr. Wheelhouse believes, or to paresis of terminal nerve filaments presiding over the functions of sweat glands is so far theoretical, and has little or no practical bearing upon the more important subject of treatment. Probably the most acceptable theory is that based upon the idea that the ganglia situated throughout the sympathetic system of nerves have for their special function, in some instances, the control of the sweat glands, and in their derangement the true cause may be found.

Heredity plays no inconsiderable part in diseased functions of the sudoriparous glands. I believe it to be a fact that neurosal peculiarities are more certainly transmitted from one generation to the next than any other factor going to make up the economy. The cleanly as well as the uncleanly are alike subjects of the diseases.

Wilson records the history of a family consisting of four boys and three girls, in which all the males were affected with hyperidrosis, while the females escaped. The same observer considers the disease more frequent in the male sex. I know of no statistical record bearing upon this subject, but my own observation would warrant the belief that the reverse is correct.

It is a mistake also to believe that there is necessarily a cachexia present in these cases. While as a rule it is possible to make out some general depreciation of the vital powers, it frequently happens that the persons suffering from this deranged secretion are apparently in the best of health. It has certainly seemed to me that the disease is found in persons of excitable temperament most often. And it is a well recognized fact that the emotions, of whatever nature, when excited, give rise to an increased flow of perspiration.

Age does not seem to influence the cause of the trouble to any marked degree, since the young and old are found among its victims. However, I think the age of puberty in females—for well known reasons—strongly predisposes to the disturbance of these as well as all other functions.

Malaria, here, as almost everywhere else in the etiological world, comes in for its share

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of the burden, and in some cases with much show of reason, for we well know that there are frequently found cases of sweating, both general and local, that yield so promptly to antimalarial treatment that we are forced to look upon it as the cause. But we would state in this connection that such sweatings, as a rule, bear the impress of their malarial origin in their strong tendency to periodicity, often, however, unaccompanied by any rise of temperature.

What has been said above is with reference to hyperidrosis principally, and it is well to remember here that bromidrosis or fetid sweating differs in the fact that it has a distinctive odor, and that the quantity of the excretion is not necessarily increased, although their origin is most likely the same.

Pathology of these affections may be considered lightly. Not even the secretion itself shows any deviation, as a rule, from the normal, while the glands, aside from being more patulous in their outlets, are in a natural state.

The clinical features are often interesting and remarkable. The various odors that characterize bromidrosis are often inexplicable. They have been likened to almost every conceivable odor, from that of the fragrance of violets to the disgusting emanations from the skunk.

The great annoyance arising from these disorders is due to the inconveniences in simple hyperidrosis—even becoming destructive to the clothing of the sufferer by keeping them constantly wet and rotting. Bromidrosis is often sufficiently marked to ostracise a sensitive person from society, thereby predisposing them to melancholia, hysteria and other similar neuroses. On the other hand, bromidrosis pedum has been the greatest trial that many room-mates have had to stand from an otherwise acceptable bed fellow. I once saw it enumerated among other causes as furnishing grounds for a divorce.

The amount of secretion in some of these cases is well nigh incredible. In an interesting case reported by Dr. C. W. Cutler, in the February issue of the *Jour. of Cutan. and Genito-Urinary Diseases*, he states that "when the patient holds down her hands with the fingers separated, drops of sweat will fall every second, forming pools of water on the floor. From one hand about an ounce of water can be obtained in five minutes. After wearing kid gloevs for an hour water can be wrung out of them. To prevent the water from ruining her dresses she must carry a handkerchief in each hand, which, in an hour's time are completely saturated.

At night her hands must be encased in towels to prevent the sheets from being wet through. With all this loss of water from the system the thirst is but slightly increased or the urine diminished."

If the calculation be made, we find that the amount of water secreted from both hands will amount in 24 hours to 3½ gallons. While this strikes the average reader as sounding somewhat Munchausenish, we are prepared to believe it, but we certainly can not understand why the thirst and secretion of urine should remain so nearly normal. Making due allowance for the position of gravity, it is a remarkable flow from two hands.

The treatment of these cases is as a rule unsatisfactory, unless the cause be found in some remediable derangement more tangible than the obscure effect of some agent upon nerve centres, or on the terminal branches of the nerves. I concur with Dr. Cutler in his statement that such agents as bismuth, tannic acid, belladonna, atropia, ergot and tonics all frequently fail and the disease goes on without interruption. In speaking of the value of local treatment, the doctor makes a statement, the application of which we fail to see in this connection. In referring to the value of dusting powder composed of bismuth, salicylic acid etc., and the various astringent washes of lead, tannic and sulphuric acids as rendering the best service, when applied freely he says: "If you ask me why local applications should cure a constitutional nervous affection, let me ask you why the local treatment of diphtheria is of such vital importance in the management of that severe general disease?"

Admitting for the sake of illustration that

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the local treatment of diphtheria is of "vital importance" which many of the best practitioners deny—the local treatment in such cases is simply to prevent local sepsis. And we say again, that unless the doctor has found a new kind of bacteria which enter the open mouths of the glands and set up the morbid process—we fail to appreciate the analogy.

In short the treatment must be hygienic in the widest sense of the word—embracing not only the physical surroundings, but especially the temperament in every way possible.

If dyscrasias be present, remedy them by appropriate agents, iron, quinia, cod-liver oil, iodine etc. Cases of this kind offer the best prospects for recovery; whereas, those patients who are apparently well in every other way are frequently, if not generally incurable.

Dr. Cutler in the paper referred to closes with the following conclusions:

1. That the cause of hyperidrosis is usually a nervous one. (I believe it always is).

2. That the secretion of sweat glands, seems to be controlled by the sympathetic ganglia of the nervous system.

3. That hyperidrosis is a functional affection of the sympathetic system.

4. That the sweating of the extremities is usually symmetrical, owing to the close relationship and anastomosis of the sympathetic ganglia of the trunk; and asymmetrical on the head and neck for want of this relationship.

5. That as there is but slight structural change in the affected sweat glands and that this is accounted for by the hyper-secretion, the disease is probably functional, and not organic.

6. That difference in appearance of the affected skin on the trunk and extremities is due to the distance from the centre of circulation, as the physiological conditions are the same.

7. That painful and tender feet, not rheumatic, are usually the result of hyperidrosis.

8. That bromidrosis is usually the result of uncleanliness—not removing the secretion promptly. (This is the opposite of our observation, which is, that bromidrosis is most apt to occur in the same class of individuals as are subjected to hyperidrosis—neurotic persons).

9. That nerve tonics are generally indicated in the treatment of hyperidrosis.

10. That local treatment is always indicated, and though it may not effect a cure it always relieves the symptoms.

Cutaneous Diseases Induced by Mental Commotion.

Torrey, in his book "Tractatus de Morbis Cutaneis" in 1817, mentions emotions among the causes of cutaneous diseases. Alibert mentions emotions as one of the causes of herpes zoster. Schedel and Cazenave in their work published in 1828, invest violent emotions, especially violent sorrow, with an important place among the causative elements of cutaneous diseases. Biett relates several instances in corroboration, especially a case of "lichen agrius resulting in a young girl from an afflicting piece of news." Rayer in 1832, demonstrated that many severe cutaneous inflammations are caused by intellectual exertions and sorrow. Bazin in his article on dermatoses, published in "Dechambre's Dictionnaire Encyclopedique" admits the nervous origin of cutaneous inflammations, while on the other hand he combats the tendency to refer all of these to this origin. Leloir joins in the admission that mental commotions and disturbances of the nervous system generally have an influence on the production of dermatoses. In 1886, having in his paper on cutaneous diseases, states that vivid emotions is a frequent cause; without distinguishing between cutaneous diseases originating in protracted sorrow, and those originating in a violent mental shock. In 1887 Leloir pointed out that this distintinction should be made. In many cases a sudden fright is the cause of the cutaneous affection. Dr. Leveque reports 31 exact observations communicated by Leloir, of cutaneous inflammations due to mental commotion (cutaneous anemia and hyperennia, edema urticaria, eczema, vititigo). The cutaneous affection followed the commotion so suddenly that the

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causative action of the latter must necessarily be inferred. The author remarks that a certain disposition for the development of such a cutaneous inflammation is necessary to give rise to the phenomenon. Leloir points out in this respect suddenness, short duration, superficial location. These dermatoses never become ulcerous—destructive. Generally they are accompanied by a severe pruritus and by various symptoms of cutaneous neurosis.

They are of especial occurrence in women. The author concludes with some therapeutic propositions,and a table showing a provisional classification of nervous cutaneous diseases, as proposed by Leloir. (See Prof. Leloir's paper in *Ann. de Derimat* 1887.—*Monatsheft f. Praktische Dermatologie.* Dr. Unna, of Hamburg, 1887.—*Pacific Record.*

The practical worth of the foregoing interesting observations is to be found in the recognition of the importance of the mentel state in persons sufferiug from diseases of the skin. We often see the transposition of cause and effect in such cases and consequently erroneous diagnosis and treatment.

The intimate physiological connection between the skin and nervous system is not generally appreciated as it should be, and in pathological conditions of the one or the other, we find a potent suggestion for the treatment.

Such is the dread that most persons entertain for "eruptions on the skin" that whatever may have been their former equilibrium of mind, it is safe to say that if the disease runs a chronic course the entire nervous system will be proportionately damaged. This is markedly true in diseases accompanied by itching. The depression of spirits is one of the most constant symptoms, together with irritability, and even melancholia, leading to suicide. In such a state of mind it is clearly impossible for the patient to get well of the most trifling ailment much less the graver dermatoses which tend to chronicity—eczema, etc.

There is no more important a lesson to be learned in the practice of medicine than the use of the faculty called tact, especially when applied to diverting the mind of a patient from an unpleasant introspection. Solomon said: "A merry heart doth good like medicine, but a broken spirit drieth the bones."

A gentleman of my acquaintance,the subject of a facial eczema, when the exacerbations come on becomes so depressed that his friends often fear mental derangement as the result. He is a perfect devotee to the game of baseball and says "its strange, but true that my face never itches during the progress of a game." A hint to the wise is sufficient. Sterne says that "every time a man laughs he adds something to his life." Let us profit by this observation so prevalent among all thinking people, and instead of covering every little (or big for that matter) eruption with ointments, plasters and lotions, go with the patient into his every-day life and learn all we can of the worries and annoyances that take away his appetite and substitute therefor the omnipresent and infernal stimulants of one kind or another that lead to insommis—and once a patient is insommic from whatever cause, he is treading upon dangerous ground; for we know too well, that without rest destruction is the inevitable end.

It is a fortunate man who has a hobby—if he rides the hobby, out of the rut of every day wear and tear, into the beautiful forests of recreation and rest. What is rest of mind but diversion into another channel of thought in which there is no care nor aught but pleasure.

A warp-sided specialist is a curse to his race. A man who can see no further than the end of his speculem or the reflection of his mirror is sadly in need of mental hygiene. Every legitimate pleasure that one can get out of life, should be judiciously mixed with his every-day toil.

A Case of Syphilitic Eruption with Chancre on the Tonsil.

Dr. Henry J. Reynolds of Chicago, delivered a cliuical lecture upon this subject (Philadelphia Med. Times, March 1), that

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contained some points of such practical value to the general practitioner that I feel we would be doing our readers a real service to present them here. Syphilis is a disease so generally prevalent and destructive in its course that a correct diagnosis is all-important. If there be a chancre on the penis or the cicatrix showing its recent site, there are few physicians who would not be able to recognize it or give such advice and precaution as would prevent the spread of the disease; but when there is no lesion on the genital organs, it often becomes a difficult question for an expert to determine.

The gist of Dr. Reynold's lecture is about as follows: "the patient was an Irishman, forty-five years old, and a Turkish Bath attendant, by occupation.

We find as you see a macular eruption over the entire body, giving at the first glance the impression that it is possibly; if not probably syphilitic in character. There is no evidence of chancre on the penis. The early eruption of syphilis has six distinct characteristics.

1. There is generally very little subjective sensation connected with the eruption.

2. The lesions are generally of a livid or copper color.

3. They are almost invariably round, circumscribed, and surrounded by healthy skin.

4. The eruption is always symmetrical or general, and superficial in character.

5. The lesions though indolent, are gradually progressive.

6. The scales, if any exist are few and not adherent.

This eruption, of course, is only present in the second stage, the first being that during the existence of the initial sore or chancre, which is not necessarily situated on the genital organs but may be found on any portion of the body. [This is important to remember since too many physicians are disposed to accept the statements of patients in these cases, and there is often an effort on their part to mislead the physician as to the true nature of the trouble.]

In regard to the bubo—it is any gland in proximity to the chancre that has absorbed sufficient virus from it to become inflamed and enlarged. It occurs in the second or third week after the appearance of the chancre, and may last for weeks or months. This is repeated to call attention to the fact that the inguinal glands, although so often the seat of buboes, are not the only location where they are occur. They exist for weeks or months.

Syphilitic fever and anemia are next to be considered. It is generally observed five or six weeks after the development of the chancre, and immediately before the secondary eruption. Then comes the characteristic sore mouth and throat. Enlargement of the post-cervical glands is one of the most constant symptoms, a condition not usually well pronounced until the eruption is fully developed, and which differs from the bubo in the fact that it is due to secondary or constitutional poisoning rather than local absorption.

All of the above named characteristics are essential to every case of syphilis. There are in addition, frequently, certain other symptoms which are not essential, as for instance alopecia, rheumatism, iritis, etc.

The combination of symptoms herein described, when found to exist, is proof that we are dealing with a syphiloderm. Many of them may exist in other cutaneous diseases, but when taken as an entirety they make out the diagnosis of syphilis. The search for evidence of a pre-existing chancre reveals no trace on the genital organs, but in looking at the left tonsil a peculiar sore is observed, and in the neck, near the angle of the jaw is found a hard swelling, the size of a cherry. The fact that no part of the body is exempt from the chancre when exposed to the virus, and that the bubo is the swollen gland adjacent to it, due to phimary absorption, has been commented upon, so that here the sore upon the tonsil is the initial sore (chancre), and the swelling represents the bubo.

These facts taken in connection with all the other essential symptoms of syphilis, make the diagnosis unquestionable. The patient admitted that he had exposed himself to syphilitic virus with man, in the most unnatural and disgusting way.

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ORIGINAL ARTICLES.

ART IN THE HOME FROM A MEDICAL STANDPOINT.

BY I. N. LOVE, M. D.,

Ex-President of the Mississippi Valley Medical Association, member American Medical Association, Missouri State Medical Association, St. Louis Medical Society, Consulting Physician City Hospital, etc., St. Louis, Missouri.

I have selected, to throw out in an informal way, a few thoughts upon "Art in the Home."

The query may be presented "what have physicians to do with art in the home?" I answer that all that pertains to the well-being of the home and its inmates, should be of interest to those whose field of work includes the family and its best interests. The medical man who cultivates the habit of reading and study is wise, or at least will be wiser, for having done so, and he manifests a broader wisdom when he extends his reading and study to general subjects. He is much less likely to become narrow and one-sided, when he feeds his mind upon a varied diet.

There is no individual who holds a more honored and sacred relation to the homes of our land, than the doctor. As the trusted adviser, I take it, he should think and know something besides physic.

From the standpoint of domestic sanitation any little point which tends to aid the building and the bettering of the home is important, however trivial it may appear when considered superficially.

All that tends to illumine, and scatter the shadows from the household is a preventive of disease. I may not contribute important matter but I trust trains of thought may be suggested to the minds of my readers which will be productive of good.

Art—Home!—two words; each a reminder of a world of sentiment—the latter the sweetest word on earth to mortals given save that of mother.

Viewed from the material standpoint, art has been defined as the employment of means to accomplish some desired end, or the application of knowledge or power to practical purposes.

The eminent French artist M. Havard says, "Art is the pursuit of the beautiful." He says whatever excites the sentiments which harmony, elegance and grace, usually excite, is beautiful. The beautiful exists only to the degree to which these emotions are aroused. To call them forth is the end of art.

Eugene Véron, another of the same school of artists, has observed—"Art is emotion translated either into combinations of lines, forms and colors, or into rhythmical movements, sounds or words." A comprehensive definition which has been given (by whom I do not now recall) is that art is simply the effort to give sensible embodiment to the ideal.

The safety and perpetuity of society depend upon the maintenance and continuity of the home—the nucleus around which there must be aggregated the protoplasmic material of social organic life.

In proportion as the home is made attractive and beautiful, will the inmates thereof be loath to desert it and seek other allurements.

A growing belief in the usefulness of beauty, and an appreciation of art as expressing the beautiful, are not the least important evidences of the advancement of civilization.

Prior to the time when primitive man had a home, his decorative efforts were concentrated upon his own person; and whether the materials at his command were fig leaves, or those of his own invention, the germ of a love for the beautiful was there, and the artist in embryo was apparent. Whether the decorative effort was directed toward the anatomical temple, or its abiding place, it was an expression of appreciation of, and respect for, humanity and Divinity.

It would have been strange indeed had not man been endowed with a love of the beautiful when there was so much of beauty around and about him; and in his expressive efforts toward adornment, all nature was his cue, and he but spoke the lines which followed after.

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It is not my purpose to trace the advancement and progress of the esthetic taste down the various generations of the past—it has been part and parcel of the entire scheme of evolution—from the first crude manifestations on, past the earlier Athenian times when the individual was subordinate to the state, and classic art and decoration was lavished upon temples and public buildings rather than upon private homes. During the time of our fathers and grand-fathers, thirty, forty and fifty years ago, in city or country, the home, was naked and barren.

Now inattention on the part of the family to home decoration is the exception; and though there may be found by the cynical, many sins of omission and commission, the tendency is in the right direction.

The utility of art is being demonstrated upon all sides, in the books for young and old, and it is brought into requisition by trade and commerce in the every day avenues of life. The very air we breathe is permeated with its spirit, and the state is very properly devoting time and money to educating her citizens to a proper conception and appreciation of its principles. In our schools there should be more and more attention given to this subject.

If it be true as Jean Paul Frederic Richter has expressed it, that every first thing continues forever with the child, the first color, the first music, the first flower, paint the foreground of his life, how important that the domestic surroundings of our children should be correct in so far as they can be controlled. Let us not wilfully paint the foreground of our little one's lives with somber colors, funeral dirges and noxious weeds, but rather with bright tints, gladsome notes and fragrant blossoms.

I do not for one moment consider myself competent to direct as to the manner of constructing and decorating the home; the taste varies with the individual, and much depends upon the possession of means to carry out one's ideas.

As Ik Marvel (and who has not been charmed with his Reveries of a Bachelor?) has well expressed it, "All the best art and picturesqueness which belong to house decoration should have somewhere showing through them, a homely, matter-of-fact basis. There may be richness, fulness, largeness, expression of luxury and wealth, but if there be nowhere a possible reading 'between the lines,' of a domestic purpose, of the sanctities and privacies and enjoyments of home-life, as well as of large hospitalities, 'tis an idle art and an idle setting forth of splendors." I must confess a preference for coziness rather than costliness, snugness rather than size.

In selecting or constructing a home or a costume, or seeking a companion for life, one is justified in trying to please himself rather than the public. His decision in any case will meet with criticism, but if it suits him, others should not complain, unless all forms of good taste be sacrificed.

I am inclined to believe that in the home cold and classical art should have no place.

The Queen Anne style of architecture, with its angles, gables and picturesque outlines, is beautiful; but in the nineteenth century, with our knowledge of the healthfulness of light and fresh air, we should so modify it as to admit larger windows, and more of them. In early times men were ignorant of the fact that light in the home is conducive to healthfulness and godliness. Sunshine is a specific against sewer-gas and noxious germs in general; and sin itself loves darkness rather than light. I think a great advance will be made when all house walls are built thicker and all windows are constructed with an inside and an outside sash, and glass of extra thickness.

Speaking of large windows and an abundance of them, it is much easier to close these apertures by means of blinds at will than to knock a hole in the wall to let in needed light. Darkness, gloom, dampness and air reeking with organic matter and filth, are not only unsanitary, but ugly and inartistic.

Marble mantles and finishings are suggestive of mausoleums and bathrooms.

Stationary washstands and all other en-

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trances into the sewerage system of a city should be as remote from the living rooms of a house as possible, and if they are altogether disconnected therefrom so much the better; they are not only vilely unwholesome, in spite of traps and other flummery of scientific plumbery, but villainously vulgar.

Parents should be impressed with the fact that during the period of childhood the ideals of life are formed, and in its dreams the germs of many a man's career are found.

We should remember that in the interior of the home, even more than elsewhere, art can be made to cultivate and kindle the imagination, and quicken the conscience; and that love, pity, faith, hope, charity and, in fact, all the emotions, good, bad or indifferent, are the offspring of the imagination.

An environment which is beautiful is refining, and it need not be expressive of an extravagant outlay of money. Each room in the house should be treated according to the purpose for which it is intended, and should not be so large but that the different articles of furniture therein contained can have an opportunity for becoming acquainted with each other. The prevailing thought should be welcome, and good cheer. A chair, cold and stately, which says "sit down but do not tarry," may be appropriate in an editor's sanctum, but not in a home.

A book case which towers to the ceiling, requiring a step-ladder to reach its upper shelves, and topped with a cornice so massive as to be dangerous to life and limb, may be all right for a public library, but not for a domestic one. More in accord with propriety is it if the books from the top-most shelf can be reached by the reader seated in his easy chair, and the space above be taken for the distribution of prints and pictures. A naked wall or an expensive fresco is unnecessary and uncalled for in these latter days when artistic prints, etchings or paintings are within the reach of all. An appropriate picture upon the wall is never out of place, unless it be hung so high as to lose its identity. It is well to bear in mind that there is greater danger of hanging pictures too high than too low. Any vacant space upon the wall may be occupied by a picture, if the light strikes it in a manner to reveal its beauties. A picture may even stand upon the floor, resting against the wall, if it be safe from the danger of being kicked over. An empty fire place may be covered to good advantage by standing an agreeable picture against it as a fire-board.

A good book is decorative, no matter where found in a room, save and except on the floor.

A single thought upon pictures—select agreeable subjects and that which is good of its kind. A creditable engraving or etching of small size, even though it be not an artist-proof is to be preferred to a pretentious daub, the chief merit of which lies in the fact that it is hand-painted. A wood shed smeared with vermilion or yellow ochre, can lay claim to the same merit, that of being hand-painted.

In regard to frames—massive paintings will bear massive gold frames. Etchings and prints as a rule require light natural-wood settings. There is more danger of frames being too heavy than too light.

As a picture upon the wall may be likened to a window opening upon a scene beyond, care should be exercised in selecting that which is agreeable and appropriate.

If the endeavor be to enforce a lesson, or preach a sermon, we should be careful not to obtrude the same at an inopportune place.

A picture of the crucifixion within the leaves of the Bible as an aid to a lesson taught, or within the sacred walls of the sanctuary surrounded by the dim religious light and the odor of sanctity, is impressive; but I question its value or appropriateness as a decorative feature of a home.

I recall a strikingly correct presentment on canvas of a naked corpse—a floater—drifting down the Thames or the river Seine (the ghastly figure taking up the greater part of the foreground), which hangs over the heavily carved mantle and the genial and generous open fire-place of a library in the home of a wealthy citizen—an art connoisseur, of one of the large cities of this country. Accustomed as I am to the sad and even the

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horrible, I must confess to being shocked at such an exhibition of bad taste. What a scene to present to the prattling children of the home, or unsuspecting guests rash enough to enter therein.

The exhibition is on a par with that of the physician who hangs upon the walls of his consultation room, copies of Rembrandt's dissecting scene, or a colored reproduction of some dreadful case of cutaneous disease, all horrid and suggestive to the sensitive minds at least of his sick and suffering patients.

How much more appropriate in both cases would have been a picture of a vine-covered cottage, clumps of green-leaved trees, a running brook, glimpses of sun-light and shade, anything in fact suggesting the beautiful or the agreeable, rather than the horrible.

I would sooner hang in my home a ten cent chromo of a cheerful and pleasant subject, than the grandest creation of a Gabriel Mox, if it present the horrible side of life as does his "Infanticide." Hanging scenes and revolting representations of morgues, may be very artistic in that they are true to nature; and even though it may be true, as has been stated, (though I doubt it) that art has nothing to do with morality or immorality, I believe their proper place along with the nude in art, to be art galleries and museums. And I consider anatomical and pathological pictures with skulls and skeletons, as part of the belongings of a medical college, or of the inner hidden closets of the doctor's office. They are of the shop, shoppy, and in exceeding bad taste when exposed to the view of patients.

It may be true that the nude in art has rendered holy the beauty of woman and the strength of man; but I question the propriety of placing before the eyes of the undeveloped uncultivated, or non-professional,much in the way of nude in art, just as I would hesitate to open a male and female surgical clinic to the gaze of children or a lay public.

In the arranging of a home, provision should be made if possible, for sunshine to enter every room sometime during the day.

As Chancellor Hoyt has said: "Animals, like all plants are, in the strict Greek sense of the word, *heliotropes*; they turn to the sun naturally." And in this connection I would suggest that there is nothing more beautiful as a means of house decoration than growing plants; and if properly looked after, they are healthful in the rooms of the sick or the well.

In the treatment of windows, much can be done to add to the pleasantness of a room. The inside shutters should be eliminated and placed upon the outside. The shades should be opaque, as their office is to exclude light when desired, or else there should be two to each window. A proper use of stained, cathedral or opalescent glass, at least in the upper half of some of the windows can be made very effective. Some who are now building very fine houses affect to despise colored glass in their windows, for the reason that it is being used in saloons, and is becoming generally popular. For the same reason they should deny themselves bric-a-brac, fine pictures, luxurious carpets, and in fact any thing that is beautiful.

Different windows in the same room may, by a judicious use of various shades of glass, presenting a harmony of color, be relieved of their monotomy of plainness as barren walls are by properly distributed pictures.

On a bleak day in November, the cold grey sky as presented through the upper half of a stained glass window of amber and opal, may be made to glow with the warmth of the summer's sun; and again in the hottest day of August, when the sky is red with the heat of the midsummer sun, the proper treatment of another window by means of apple blossoms on a field of blue may produce the mental effect of a morning in May.

In any case, when desired, the cold transparent glass may be made, by proper effort, to give us sunshine and shade, roses, lilies and pinks, trees laden with fruits, happy children and humming bees and singing birds furnishing a very poem in color, a rainbow symphony of broken light, a smile on a Sahara of sameness.

A mania for neutral tints may be all right

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in carpets and color of walls, as furnishing a background for other materials. In her landscapes, trees, fruits and flowers, nature furnishes few neutral shades. She is for the most part positive and decided in color. Brightness and cheerfulness predominate, and I think this should be the prevailing idea in the finishing and furnishing of the home.

I am fully persuaded that whether considered practically or sentimentally, art should have full representation and regard in the home. We should thoroughly believe in the utility of beauty, and have a sincere interest in art as the creating, adapting and organizing of beauty.

We should each and all cultivate the disposition and the ability to make our homes more livable and more lovable.

Let the prevailing sentiment at home whether expressed in our conduct or our surroundings be a proper mingling of brightness and shade, geniality, cordiality, restfulness and cheerfulness. The influence can but be toward a more perfect happiness and godliness; for, however large we make the circle of life, home must be its center.

A CASE ILLUSTRATING A RARE CAUSE OF TARDY LABOR.

BY M. H. MCLEAN, M. D.

Read before the St. Louis Medical Society Feb. 28, 1888

The patient was a primipara, aged 26, tall and of good build, dark complexion, and of nervous temperament.

The last menses occurred April 1, 1887; quickening was felt by the patient, as she thought on July 8, 1887.

Late in April, in May, in June, in July, in Oct., and in Nov., on days corresponding to dates for the usual return of the menses, there were severe symptoms of threatened miscarriage, requiring several days rest in the recumbent posture, and vigorous use of uterine sedatives.

The patient became conscious of occasional short pains during the night of Jan. 11, but real labor pains did not occur until about 5 P. M., Friday, Jan. 13.

By palpation through the abdominal walls the L. O. A. position had been diagnosticated.

By vaginal examination Friday evening the presenting part was found very high, the cervix of the uterus showed no shortening, but was rather softened and permeable by the index finger. There was an unusual fulness of soft tissues about the presenting head, which seemed to be entirely unaffected by the uterine contractions. This soft tissue was limited by a distinct, thickened, circular ridge about an inch and a half above the external os, which I took to be Bandt's ring.

During the night of the 13th, as no progress was apparent, 2 gms. of chloral was administered per rectum, securing a few hours rest and sleep.

Saturday morning, there was still no progress, pains seemed less vigorous, and .30 gm. quinia was given.

About 2 P. M., of the 14th, after a very warm antiseptic douche, I introduced my sterilized hand into the vagina, and the index finger through the cervix, and found the fetal membranes adherent to the lower uterine segment throughout the circumference of the os, and up to the ring described. These adhesions were broken up with some difficulty, so far as I could then reach, causing severe pain. Three hours later it was deemed necessary again to introduce the hand and finger, and more adhesions were found and broken.

The pains grew stronger, and the membranes began to bulge slightly soon after the last procedure. But a very thick cervix remained to be stretched and dilated, and progress was slow. Chloral was again administered Saturday night, with great benefit to the patient.

On the morning of the 15th, the contractions were strong, patient grew restless, and chloroform was used for a time in small quantities, and during pains only.

Progress was steady but slow. The cervix was carried in front of the head well down toward the vaginal orifice. At 6 P. M., the pa

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tient was thoroughly anesthetized, and delivered by forceps at 6.35 P. M. The cervix was lacerated bilaterally.

The placenta and membranes were delivered entire within ten minutes after delivery of the child. The placenta was large and of the battledore variety. The membranes about the site of rupture were thickened, and the chorion presented a rough surface with evidence of adhesions. The amnion and chorion were also adherent to each other.

The duration of labor was almost fifty hours. As the pelvis was roomy, and the pains good until near the close of labor, there seemed no other cause for the delay than the condition described.

In the literature to which I have had access, there is very little mention of the condition.

Lusk mentions the condition and prescribes the treatment.

In the last edition of "Cazeaux and Tarnier's Obstetrics" I find, "The membranes as well as the placenta sometimes become abnormally adherent at some points of their surface."

Karl Schroeder in his "Manual of Midwifery, edition of 1873 says: "There is very seldom so firm an adhesion between the maternal and fetal membranes in the immediate vicinity of the internal os, that the lower segment cannot retract over the presenting part of the fetus. Separation by the finger or rupture of the membranes renders possible the dilatation of the os."

In considering the etiology, some source of irritation is to be sought, which would result in inflammatory changes, thickening and adhesions.

The strong tendency to miscarriage causing painful contractions for a day or more six times during the first seven months of pregnancy, seems to me to have been the efficient causal factor in this case.

SMALL-POX.—The secretary of the health department reports that from January 1 to 31 there were 224 cases and 27 deaths, and from February 1 to 14 then were 60 cases and 7 deaths from small-pox in San Francisco.

ON RELATION OF THE PROFESSION TO THE PUBLIC.

BY J. SOLIS-COHEN, M. D.

In concludiug his annual address before the Philadelphia County Medical Society, January, 1888, the President, J. Solis-Cohen, commented as follows on the relations of the profession to the public:

It is to be deplored, on the score of professional ethics, that mention of some of our scientific work is occasionally noted unofficially in the public newspapers, despite the express interdiction in our by-laws. Whether this prohibitory clause be deemed judicious or not, it is plainly the duty of all members to accede to its behests. Those who disapprove of it should present their reasons for so doing in full meeting, and should endeavor to have it rescinded. They have neither the right to ignore it on the one hand, nor the right to obey it on the other. On several occasions when reporters of the daily press have been present at our meetings they have assured me that they were present on invitation of a member; that they had no desire to intrude and had believed that their presence would be agreeable to the Society. This subject leads me to offer a few remarks upon certain relations of the profession to the public. While there is no reason to doubt that much of the individual editorial advertisement of subjects discussed, or to be discussed at societies, or of operations performed in public places or in private, is due to officiousness on the part of a student, a follower, an attendant, or a patient, there is equally good reason to believe that most of it is courted, directly or indirectly, by the individual most interested. Of this fact I have been amply assured by newspaper men who have been my own patients, and to whom I have put the question direct. I have been assured further, that it could be taken for granted that little matter of personal medical importance ever gains access to the papers without the knowledge of those most intimately concerned. On the other hand, it is equally true that matters of some

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immediate momentary interest to the public do not always reach the newspapers, even when passing through the mails in hundreds of notices openly printed upon postal cards.

While it is gratifying to believe that this itch after newspaper notice may be much less prevalent in Philadelphia than in some other localities, the hope is to be indulged that it may eventually become entirely extinguished. The disease at present is in great measure a mere matter of taste—quite poor taste, according to the ethics of the Philadelphia County Medical Society.

One custom in which the ordinary conduct of the physicians of Philadelphia is to be commended, in their relations to the public, consists in their unwillingness to cater to gratifications of the morbid appetite of the newspaper public for tattle as to the nature of the diseases with which some of their distinguished patients may be afflicted, and as to the prospect of their death are survival. Propriety indicates that such inquiries should be referred to the patient if he be in a responsible condition; or, if otherwise, to that member of the family upon whom the responsibility has devolved. The confidential relations of a patient to his physician should remain undisturbed even when the patient is no longer competent to withdraw his confidence, and no communications presumptively disagreeble to him in his senses, should be furnished for press gossip without the consent of those who are most immediately interested. The pleasure derived by an invalid from the daily perusal of his favorite newspaper is often exceedingly great, far greater than when, under the press of affairs, he read chiefly headings and telegraphic items. He reads it much more thoroughly, sometimes even to the advertisements. As he reads day by day, of what is going on in the great world outside, his little world of bedroom life seems somewhat less constricted. Let us avoid curtailing his gratification by acts of ours. If his newspaper cannot be taken up without a dread of seeing some paragraph discussing the nature of his malady and the prospects of his early demise, this innocent source of enjoyment is poisoned for him. He must rest content with a mutilated paper, the very gaps in which are repulsively suggestive, or he must consent to have it read to him, or give it up altogether and thus become deprived of taking interest in many things outside of his own illness. It is hard enough for him to know that his malady is incurable, without having the fact forced upon his attention at some comparatively happy moment when it is out of his thoughts. Harder still, perhaps, to steel himself into indifference.

It is unnecessary to mention examples. They must be familiar enough. In some instances there has been abundant reason to believe that death has been hastened by thoughtless comments in newspapers. Shall the individuals always be sacrificed to the multitude? It has been stated that occasionally, when potentates or very wealthy individuals have been the subjects of these items, special copies of newspapers have been printed for their use, in which the objectionable personal passages of the general edition have been replaced with other matter. But there is little hope that the sores of the afflicted shall not be exposed to public gaze, unless their own physicians protect them by the charity of their reticence. The public maw is so rapacious, that the average newspaper man dares not deprive it of any tidbit, however unfit the food, and, worse than the cannibal who sometimes kills the sick man that his people may devour him, the editor sometimes delivers the sick man to his readers that they may devour him even while he is dying.

Our relations to each other remain in a very satisfactory condition, as evinced by the harmoniousness of thought and of action in the routine business of the society and in such special business as is presented from time to time.

The additions to our membership, while large, are hardly commensurate with the number of physicians in the city. Increase should be encouraged not only by seeking the accession of those who are in high repute as to their realization of their obligations to each other and to their profession, but by intima-

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tion to those whose very association with us we feel would be all they would require to learn those unwritten duties and to live up to them, that any desire on their part to join our numbers would be met with the respectful consideration of our Board of Censors.

In concluding, it but voices the sentiment of the society at large to bespeak for the coming year continued interest in matters of medical science and medical polity, so that the Philadelphia County Medical Society may be universally regarded as one of the best models for furthering the promotion of medical knowledge and the spread of medical ethics.

In a paper on "Apex Expansion *vs.* Pure Air in Pulmonary Consumption" read before the Philadelphia County Medical Society, Dr. Thomas J. Mays concludes as follows:

After reviewing the whole subject, we are driven to the conclusion that the line of immunity from consumption, which, in the early history of our country, was located at the Atlantic seaboard, and which has gradually receded westward with the tide of civilization, until at present it has reached the latitude of Colorada, will not stop in its course until it touches the shores of the Pacific; that the question of curing the disease does not depend on the purity or freshness of the air, or upon the number of bacilli which the atmosphere may contain, or upon the amount of oxygen which may be introduced into the body —for these are all secondary considerations; but it is simply a mechanical question—a question as to the best mode of expanding the lungs, and especially the apices of round-shouldered and flat-chested patients, of removing the infiltrated products already existing, and of enhancing the constitutional resistance.

Oil of turpentine is said to be a powerful deodorizer for iodoform. A little rubbed on the hands will completely remove the smell from them. The hand should be afterward washed in soap and water. In the same manner spoons and any utensil may be freed from the smell of iodoform.

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SATURDAY, MARCH 17, 1888.

SPECIALISM AND GENERAL MEDICINE.

The relation of specialism to general practice is a delicate and important one. The outlook at one time was not altogether a satisfactory one for either families or the practitioners. It looked as though the family physician was to be a thing of the past, and the organs of the family were to be distributed around promiscuously, the brain to A, the air passages to B, the eye to C, the ear to D, the kidney to E, the womb to F, and the skin to G, and so on, and that familiarity with, and knowledge of the constitution, hereditary tendencies and idiosyncracies of the family, so valuable to patients and doctor, were to be scattered to the four winds. If it be true that one-half of the treatment of disease depends upon the psychical influence of doctor upon patient, how important that he should know the patient thoroughly.

I believe that the time is coming when all general physicians will be specialists, and all specialists be family physicians, with but few exceptions. Possibly the eye and one or two other organs will receive the exclusive attention of some workers, but always in conjunction with the family physician, for, from the very nature of his work, it will be impossible for a specialist to be other than an aid of the general worker.

Dr. Leortus Connor has well expressed it in the *American Lancet.* "Like soldiers in the army, each specialist will have his duty, but after all, the general practitioner, as the

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general, will have the whole under his direction. From the very nature of his work it will be impossible for a specialist to act as a commanding officer in the medical army. His clients are too transient, his work is related to but a single portion of the body, his studies are in but one line. Hence, it must come to pass that when the medical profession becomes a real power in the community, the general practitioner will be general in deed as well as in name."

After years of work in the broad field of general medicine each worker will naturally develop special skill and fitness in particular directions, his studies and investigations will tend in the same direction, not however to the exclusion of an interest in the general field. Dr. A., crystalizes into a man particularly successful in the management of special disturbances connected with maternity. Dr. B expands into the possession of particular abilities in the handling of childrens diseases, Dr. C develops individual capacity for wrestling with lesions affecting the nervous or the respiratory system but each and all continue in their general work and in a generous and broadminded way they consult together over the intricate cases which arise in the families under their care. Where special work accumulates to such a degree as to destroy altogether the family practice, the worker becomes almost exclusively a consultant, and in the giving of his special skill to the patient he does so under the direction of the one in charge—the family doctor, and is as loyally considerate of his duty to him as to the patient.

The consultant called into any case, whether he be in the field of general medicine, or one of its branhes, must be thoroughly versed in unwritten law which governs gentlemen? He could not well at a later period accept service in the family or under any circumstances take that case out of the hands of the physician in charge except in response to the latters expressed wish coupled with that of the patient or family. A man catering for consultation practice who sneaks into a family through the generous confidence of the physician in charge, errs grievously, and to put it mildly, is not far-sighted if he permits himself to supplant the one who trusts him; but he furnishes no argument againt consultations on general principles, by his ungenerous, unkind, unwise course. All workers in the profession either general or special are in honor bound to give their serious and intricate cases, involving doubt as to diagnosis or treatment, the benefit of counsel, prompted thereto by the interests and the sentiment, "As ye would that others should do unto you, do ye even so to them."

I. N. Love.

Expert Testimony not Admitted in Court.

"A recent ruling by Mr. Justice Day, at assizes in the North-Eastern Circuit, will scarcely commend itself as a means best tending to the promotion of equitable verdicts in criminal cases, when the plea of insanity is raised on behalf of the prisoner."—*Brit. Med. Jour.*

In the case in which this remarkable ruling was given, the prisoner had been indicted for the murder of two persons. The learned judge declined to allow the medical witnesses to give an opinion as to whether the prisoner was sane or insane at the time they examined him, holding that they should confine their evidence to matters of fact as to what they saw or heard while making the examination.

We have heard it said that "some things are so black that they are blue." This ruling of the judge is so absurb as to be ridiculous. It does not only place a veto upon the admission into the courts, of expert testimony of any and all kinds, but it implies that all men who are eligible to the juror's bench are equally well qualified to pass judgment upon any and all facts that may be presented; and further than this, it implies that a man who has never seen or heard of a thing knows as much about it as he who has made it his life-study.

"Self-preservation is the first law of nature," and it is possible that this erudite (?) judge is trying to protect himself against expert

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testimony, which would certainly place him "behind the bars."

We do not know the exact significance of such a ruling in England, but in America, it would be pitiable.

It is proverbial that our best educated citizens, those whose judgement can be relied upon most fully, shun as far as possible the jury-stand, and that juries for criminal cases, are often composed of men who "hang around the court-house" that they may occasionally, make "two dollars a day" by serving on the jury.

When to Begin the Use of Mercury in Syphilis.

When a patient with a primary syphilitic lesion applies for treatment, it is of great importance to determine whether the disease is local or constitutional—whether it is chancre or chancroid.

So minutely have the points of differential diagnosis been described, that in most cases physicians have no difficulty in deciding as to the nature of the lesion; and yet cases do occur in which the best syphilographers are unable to tell whether the lesion be a chancre or chancroid.

If the sore be recognized as a true chancre, no time should be lost in placing the patient under the influence of constitutional treatment. In an excellent article "On the Abortive Treatment of Syphilis" (*Brit. Med. Jour.*), Dr. Jonathan Hutchinson says:

"There is a sense in which, without any hair-splitting, tertiary symptoms may be said not to be syphilis at all. There is neither proof nor probability that the microbe or virus is present in their lesion. They do not develop symmetrically, and they are not contagious; they are due to processes of inflammation occurring in tissues which have formerly been under the influence of syphilis, and have been modified by it. If this be their true position, it will easily be seen that no antidotal treatment directed to the killing of the microbe can prevent them, unless it is commenced before the system has been contaminated. If we wait till the sore is well developed, the patient feverish, and the eruption on the eve of appearance, we have waited until the patient has had syphilis through him, and though we may then proceed to cure the disease by killing the poison, it is too late to prevent its remote effects. In saying this, do not let me be understood to say that the use of mercury late makes no difference as to proclivity to tertiary symptoms. On the contrary I believe, although it is impossible to prove it, that it does make them both less common and of milder type."

Finding this to be true, the question naturally arises, would it not be better to assume all the doubtful cases to be constitutional, and to put the patients on treatment accordingly, that they may be "on the safe side?" We think not. In the first place a physician should never subject a patient to a long course of mercury that is unnecessary, and such would be the case if this plan were followed. And then, too, in order successfully to treat constitutional syphilis, the physician must have the earnest cooperation of his patient. It is no little undertaking to follow directions that require a medicine to be taken three times a day, and continued for six months or a year, and there are few who will follow such instructions unless they be positively assured that they have the disease.

It should be remembered that if the treatment be properly carried out, during six months of this time the patient is, so far as he is able to tell, in perfect health.

If there be a doubt in his mind as to whether he has syphilis or not, he is pretty sure to decide that he has not, and he abandons the treatment till secondary or tertiary symptoms appear.

The proper course to pursue in all doubtful cases is to treat the local lesion, keep the patient under daily observation, and as soon as secondary symptoms are apparent, to put him upon constitutional treatment.

In the article above referred to, Dr. Hutchinson said:

"It is to be clearly understood that I have been speaking only of cases in which the in-

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duration was characteristic, and in which an interval of from five to seven weeks had occurred since the exposure. I have never allowed myself to diagnose a sore as infectious, or to begin mercury, except under these conditions."

In concluding his remarks he wished to draw attention to the fact that the early use of mercury does not only greatly shorten the duration of the primary phenomena, but that it also greatly modifies, and in many instances entirely prevents those of the secondary stage. He asserted that, when circumstances favor, the febrile stage of the exanthem, syphilis, may be rendered wholly abortive.

Mechanical Treatment of Hernia.

In a paper read before the medical society of the state of New York (*N. Y. Med. Jour.*) Dr. W. B. DeGarmo gives the result of mechanical treatment in one thousand cases of hernia occurring in private practice. Some of the cases presented double hernias.

In classifying his results none were numbered as cured that had not been six months without any form of support; many of them several years.

Those numbered as improved were wearing lighter trusses than was at first necessary to control their herniæ and they were in every respect comfortable and free from danger.

Under "herniæ retained," he included all those cases which, although under control, showed no signs of improvement.

His summary, and his conclusions drawn from a study of the cases were as follows:

"Out of the entire number of herniæ, 1,203, a little over one quarter (or 336) have been cured, and, as shown by the table, 463 were improved, 312 were retained, 5 were abandoned as unmanageable, and in 87 the result was unknown.

The study of the foregoing cases leads to the following conclusions:

1. That by early mechanical treatment a large percentage of herniæ occurring under middle age can be cured.

2. That, while there is no intent to underrate the value of surgical measures in suitable cases, it is believed that the greatest relief to the greatest number can be afforded by the more careful and scientific mechanical treatment of hernia.

3. This end can be attained only by the personal attention of the practitioner, instead of allowing such cases to go into the hands of unprofessional and incompetent persons."

During the writer's term of service in the Hospital for ruptured and crippled, in New York, he fitted from twenty-five to fifty trusses daily, and his experience coincides with that of Dr. DeGarmo. We were able to say to the parents of the children which had oblique inguinal hernia. "If you keep the truss on the child, as it should be kept, your child will get well." The importance of fitting trusses to children that have hernia is greatly underrated by the general practitioner. There is perhaps no other abnormal condition to which human beings are subject, for which so many varieties of mechanical "sure cures" have been placed before the public. It is principally on this account that regular physicians refer these cases to the instrument maker.

To effect a cure, the truss must be worn for months, and at no time must the intestine be allowed to pass through even the inner abdominal ring. The object to be gained in fitting a truss is to make pressure sufficient to close the inguinal canal by bringing its anterior and posterior walls together. A flat pad answers this purpose best in all cases in children, and in mild cases in adults. The pad should never be worn in front of the pubic bone, but just above and to the outer side of the crest of the pubis.

The physician should see the patient every other day for a time, and question closely to learn whether the truss had been properly worn in the interval. In the case of children the physician can do but little without the earnest aid of the parent.

What is Stone in the Bladder.

Sir Henry Thompson states (*Brit. Med.*

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Jour.) that of the nine hundred and fifty calculi now in his cabinet removed from the bladder, by operation, there is not one weighing less than twenty grains, and he has never accepted or reported an example beneath that weight as a "stone." In chronic prostatic retention cases where the phosphatic concretions so frequently and rapidly form, he has never recorded anything as a stone, that had not reached at least half a drachm in weight. Smaller concretions can be removed through the urethra; most of them by simply washing out the bladder. He thinks the custom of calling particles stone, that weigh from two to five grains, may give support to objectionable practice.

EDITORIAL PARAGRAPHS.

BY DR. I N LOVE.

That too little attention is given to the application of remedies for the relief of disease cannot be questioned.

Pathology, bacteriology, microscopy, etc., are all important, but the equipment necessary to combat disease is worthy of our most profound regard.

I remember to have heard some ten years ago a bright young graduate of a German university, noted for its grand workers in the fields of anatomy, physiology and pathology, say,in a boastful way,that pathalogical investigation and practical surgical work were the only things worthy of the dignified attention of brainy men. As evidence he cited the fact that in the great institution from which he recived his diploma, there was not even a chair devoted to materia medica. Such ideas frequently prevail among novices in the profession and those possessed of superficial attainments.

They should be reminded that the dead-house is not the goal to which the sick and suffering cast longing eyes; that mere butchers may be good carvers; that cool blood, steady nerve, reckless disregard of human life, and a lack of knowledge of anatomy, coupled with an appreciation of the necessity of cutting boldly, ignoring arteries, except to tie everything that bleeds, may make what the masses call a good surgeon, but close powers of observation, calm judgment, keen perception, conscientious attention to little things, and a well-poised mind are necessary to a skillful physician, or the maker of a good practitioner.

* * *

The above recalls to my mind the fact that Dr. Otto A. Wall, of St. Louis, has recently presented to the medical profession a little work entitled "The Prescription," which contains the rules of the Latin language; rules for abbreviating; an explanation of weights and measures, including easy methods of acquiring the ability to write metric prescriptions; rules for general and special extemporaneous prescribing and determining doses for adults and children; rules in regard to combining remedies of similar and different therapeutical or physiological actions; an explanation of incompatibles; statements of the influences of sex, age, climate, time of day, etc., on the action of medicines; and, in short, explanations of every influence or circumstance that should be considered by the therapeutist when writing a prescription. It also considers fully every form in which any remedy can be prescribed for either internal or external administration or application, and gives rules for writing such prescriptions.

The book is timely, and should be in the hands of every physician.

No one is better qualified for the work in hand than Dr. Wall, having been a teacher of materia medica for twenty years past, he is considered high authority.

* * *

Dr. C. F. Taylor, editor of the *Medical World*, has suggested, in order to guard against confusion in prescriptions that the Greek letter Delta (△) be substituted for the present dram sign (ʒ), the latter so closely resembling the ounce sign (℥) as to be objectionable. The change probably, if once thoroughly established, would be desirable, but considering the difficulties in the way, I am inclined to think we had better stick to

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our dram, being painstaking and careful in its use.

The improper or unskillful use of the dram is no argument against its proper employment.

* * *

Regarding the suppression of diphthongs, the *World* is certainly engaged in good work, advocating, as it does, the discarding of them altogether, except in the formation of the genitive singular and nominative plural of Latin nouns of the first declension. On and after this date let us all follow the *World* in its righteous effort to suppress the superfluous. Life is too short to justify us in using two letters where one will do as well or better. Tait and Battey had far better long ere this, have undiphthonged their specialty rather than have unsexed the women whose chief disease lay in the hysterical direction. No longer need any of us now dodge such words as gynecology. Most worthy Taylor, altogether thou hast persuaded me to be a believer.

* * *

That our St. Louis chemists, Battle & Co., have presented to the medical profession an admirable compound in their bromidia all will admit, but it has occurred to me a number of times that they would serve us to good advantage if they would prepare a bromidia No. 2 for use in diseases of children, leaving out the cannabis indica, and making the component parts the bromide of soda (instead of potassium) and chloral.

* * *

Our ideas of clilatomogy are becoming completely demoralized. Just as we become possessed of information, as to the best place to send a patient with phthisis or any chronic disease which is likely to be benefitted by a change, which we think can be relied upon, Old probs comes along and upsets everything. During the past two or three years, Southern Texas, Florida, the South of France, Southern Italy and in fact every winter resort of which I have any knowledge has been overwhelmed with a severe winter, for which there was no provision made, and in consequence the suffering was great; I am inclined to the opinion for the present at least that during the winter months, there is "no place like home" for the invalid.

* * *

As a summer resort for the healthy or the invalid Colorado is no doubt a most desirable place, but it is questionable whether the invalid would not be safer in going by easy stages. This thing of jumping aboard a sleeper and rushing at the rate of forty or fifty mile an hour for two or three days up to an altitude of ten thousand feet above the sea level, is a procedure not entirely free from danger. I question whether the old fashioned overland stage coach route was not much to be preferred. It is stated that decomposition something unknown out there: a cadaver exposed will dry up like a mummy, which certainly argues against bacteria and germ diseases. The element essential to softening, fermentation and decay, humidity, is wanting.

* * *

Speaking of climatology, brings to my mind the new journal which has just been cast upon the unoccupied section of the field of journalism from the port, of Washington, D. C., and dubbed *The Climatologist.* Certainly the time is ripe for such a journal. William C. Chase is the Editor, and if the initial number is a token of the succeeding ones it deserves success. It will be issued quarterly, at fifty cents a year, and every physician interested in climatology, climatotherapeutics, epidemicology, balneology, and preventive medicine, should subscribe for it.

Definite information, and no disposition to boom health resorts and watering places, is what we have a right to expect from such a journal.

* * *

The case of the Crown Prince like that of President Garfield, demonstrated that the secular press is nothing if not infallible. In one paper we learn that His Imperial Highness is dying, in another he his getting well: In one he has cancer, in another he has not. One day Sir Morell Mackenzie is to be fired, the next he is admired by all the Imperial

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family. At one time Virchow, and all the rest have discomfitted Mackenzie, and in turn they are snubbed. They even go so far as to announce authoritatively that the Prince has a case of vulgar royal syphilis, and that discovery is made by Mackenzies' trusted assstant and Lieutenant Hoovel. And strange to say these various reckless and nonsensical announcements draw out from some indiscreet members of the profession, and even some medical journals, a pronounciamento for or against this or that statement of this or that man. All of which is the veriest rot. The sum and substance of what we do know, is this, viz: The Crown Prince is fortunate in being in the hands of probably the ablest laryngologist in the world, who has given evidence that he is thoroughly master of the situation.

He saved his patient from the plodding pathologists who would have had his extirpated larynx in alcohol long ago, and the remainder of the Prince's form would have been food for worms long before that of his Royal Father. A doctor treating the humblest pauper afflicted with syphilis, cancer or what not, would resent as an impertinence any quizzing on the part of press or public, or in fact any one. A Royal patient would certainly have a right to expect, and should receive equal consideration:—viz., that his doctor should keep his mouth shut.

* * *

Appropos to the above, the Pope infallibles of infallible journalism, the *St. Louis Globe-Democrat* had the following:

"Is is said of Bright's disease that when the patient dies it is Bright's disease, and when he recovers it is something else. The same rule seems to apply to cancer in the throat, taking the case of the German Crown Prince as an example. Had he died, as the doctors generally predicted that he must, the diagnosis would have been justified; but since he insisted upon living, it is necessary to give another name to his affliction."

If the *Globe-Democrat* ever dies, it stands a better chance of succumbing to the Bright's disease than any other; and yet a doctor, who could not diagnosticate a disease better than the *Globe-Democrat* prognosticates Presidential possibilities, would be drummed out of the profession.

* * *

In conditions, which call for the potash salts such as the bromides, iodides etc., the same salts of soda are to be preferred, for the reason that they are much better borne by the stamach. As a gentle saline purge the sulphate of soda far surpasses the rasping and irritating sulphate of magnesia (epsom salts). Another point worth remembering is that they are all more prompt in their action if given in liberal quantities of hot water.

One and two dram doses of the iodide of soda are well received and promptly eliminated if given in this way.

* * *

The following papers are promised for the approaching meeting of the State Medical Association at Kansas City.

Colotomy, by Dr. N. B. Carson, of St. Louis.

The Objectivity of Sense Perception, by President S. S. Laws of Columbia.

Some Practical Points in Railroad Surgery, by Dr. W. P. King, of Sedalia.

The Untoward Effects of Drugs, with the Painful Surprises, by Dr. R. F. Brooks of Carthage.

Drinking Water and its Effects as Causative of Disease, by Dr. R. R. Hunter, of Kansas City.

Observations Respecting the Causes and Treatment of Uterine Displacement, by Dr. Y. H. Bond of St. Louis.

We will add to this list in subsequent issues of the REVIEW, the tittles of papers as sent to the President of the Association Dr. Lutz, of St. Louis, or to Dr. E. W. Schauffler, of Kansas Ciry, Secretary of the Committee on Scientific Communications.

From all indications the meeting will be a working one, and gentlemen will do well to submit their papers early.

The time of meeting has been changed to April 17.

Kansas City is a good railroad centre and

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no doubt special rates will be allowed all members.

CORRESPONDENCE.

NEW YORK LETTER.

NEW YORK, March 1, '88.

EDITOR REVIEW: Medicine and its various interests are not suffering this winter from lack of legislative measures. A bill has just been introduced at Albany, requiring the makers of patent medicines to file with the State Board of Health a sworn statement of the ingredients composing them and the proportions of each. If the Board shall decide that the compound is non-harmful and not "calculated to deceive the public," a certificate to sell will be given to the manufacturer. The measure is of course vehemently opposed by the various concoctors of compounds labeled by "apt alliteration's artful aid." The profession at large is not attempting to push the measure at all, and there is great doubt of its passage.

The Laryngological Section of the Academy, not to be behind the times, has had its evening on "Adenoid Vegetations in the Pharynx," and its discussion called together our leading throat men, and we were honored with the presence of Drs. Hooper and Blake, of Boston, who read the papers of the evening. Adenoid vegetations have this winter completely distanced the hypertrophied turbinated tissue as an object of public interest.

I alluded in a recent letter to the musical boy-wonder, Joseph Hofman, whose interests had been espoused from a physical point of view by the Society for the Prevention of Cruelty to Children. Since that time a medical commission has examined him, and as is the usual result, the eminent doctors have disagreed. Drs. Sayre and Janeway declare him perfectly sound and able to continue his public performances. Dr. Baruch, the family physician, declares his patient suffering from nervous exhaustion and utterly unfit to appear in public. Facts seem to be on the latter's side. The boy has had for the last few weeks an afternoon temperature of from one to one and a half degrees above the normal, and has had an irregular pulse. A suspicious urinous smell about his clothing led to questioning which finally elicited from him the confession that he was unable to hold his water while playing. It does not seem illogical to deduce from these premises the conclusion that the boy is suffering from overwork, and that by far the easiest course under the present circumstances is to give him a complete rest. The public takes this view of it and the only strongly opposing party is his manager, Mr. Abbey, who has sued Hofman's father for violation of contract.

The distribution of the Hospital Sunday funds has recently taken place. The net awards were forty-three thousand, five hundred dollars, some sixty-five hundred more than last year. Mt. Sinai Hospital received seventy-five hundred; St. Luke's, sixty-four hundred, German, forty-seven hundred; Institution for Ruptured and Crippled, fifty-two hundred, and so on down. The amounts given to each institution are in proportion to the number of days of free treatment furnished by it.

The new Loomis Laboratory of the University Medical College was thrown open to the public on a recent evening. It is a five-story fireproof structure of brick and brown stone, of the Romanesque style of architecture. Its finishing and furnishing throughout are of hard wood, and the stairs are of slate and iron. It is 30x90 feet, and although a separate edifice, is connected with the college building proper. The first floor is devoted to physics and materia medica, the second to chemistry, the third to physiology and histology, the fourth to pathology, and the fifth to bacteriology which is, as one of the daily papers facetiously remarks, "the youngest and most fashionable of all the 'ologies'." Our three colleges are now provided with ample laboratory facilities.

Somewhat of a breeze has been created here by the discovery of opium smuggling through this country to the West Indies, and the name of a very prominent firm of manufacturing

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chemists has been associated with the matter. The latter make a most emphatic denial of any complicity, and though the testimony has not yet been made public they are taken at their word, and their innocence is believed in.

Is a hospital iu a street full of private residences a nuisance? This is a question which has just come up of late in connection with an attempted establishment of a Babies' Hospital on one of the avenues. Physicians living and practicing in the immediate vicinity think that it would be a nuisance, and that contagious and infectious diseases might be communicated from it to the neighbors. Other physicians living at a distance take the opposite view. The court has not yet rendered its decision.

It is rumored that Prof. Henry B. Sands has resigned his position of attending surgeon at the Roosevelt Hospital. The surprise at this announcement has been mingled with the regret that his health does not warrant his continuance of the arduous duties of the position. The service has greatly increased in importance and efficiency since his attendance at the institution has been continuous. The name of his successor has not yet been announced.

Dr. Robert Abbe has recently read at the Academy of Medicine an interesting paper on Dupuytren's contraction of the finger. He explains the occurrence of the disease in the following sequence of events: first, a slight traumatism of the palm, often entirely forgotten; second, a spinal impression produced by this peripheral irritation; third, a reflex influence to the part originally hurt, producing insensible hyperemia, nutritive tissue disturbances and new growth shown in the contracting bands of fascia and occasional joint lesions resembling acute rheumatism; fourth, through the tense contractions a second series of reflex symptoms, neuralgias, general systemic disturbances, and a reflection of the trouble to the corresponding part of the opposite hand.

J. E. N.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday Feb. 23, 1888. The President, Y. H. Bond M. D. in the chair; J. B. Prichard, M. D., Secretary.

Dr. Dalton.—I present a specimen, a five months fetus *in utero*, with the cord and placenta *in situ*, a condition we rarely have the opportunity of seeing.

Dr. Dean.—I have a similar specimen in my office, the fetus being a month younger, which I shall be glad to show to any gentleman calling there.

Dr. Edward Borck.—I present a patient, a mechanic employed on a machine known as a double-planer, its roller bearing four knives arranged in a semi-circle, its revolutions being very rapid. After having worked in safety with it for thirteen years, six weeks ago the machine caught his hand and amputated two of his fingers in a very beautiful manner, as well as any surgeon might have done, leaving two flaps which needed no trimming. In one finger the machine had dissected the second phalangeal bone out. I dressed the fingers after Schroeder's plan, namely, without waiting for the hemorrhage to cease. I dressed the parts antiseptically, and did not disturb the dressing for ten days, when I found the wounds nearly healed. The phalanx whence the bone was dissected is quite solid, from the organization of the coagulated blood. I think, possibly, some of the periosteum was left.

I exercised the greatest care to save every part of the hand, the very smallest portion being of importance.

Dr. Meisenbach.—This accident proves the correctness of my statement; namely, that the dorsal surface of the hand being in closer proximity to the cutting machine; is more frequently injured than the palmar. My ordinary experience with such accidents is that I have been compelled to resect the bone to get a suitable flap, my endeavars being to get as much soft part as possible to cover the end of the bone. Machine accidents usually cut

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through the bones at an oblique angle, leaving a pointed end which requires resection, to get a smooth, rounded extremity.

I think that the solidity of the stump referred to by Dr. Borck in his patient is caused mainly by scar tissue.

Dr. Lutz.—With regard to Dr. Meisenbach's statement concerning the covering of stumps, namely, that is well to resect the bone to secure a thick flap, I must dissent somewhat, for if we examine stumps some time after amputation, we find atrophy of the soft part; nothing remains of the covering of the stump but connective tissue and integument. I should therefore hesitate to sacrifice any of the bony length of the finger in order to secure a very thick flap, preferring to save length of finger, and covering with a moderately thick flap. One object in securing and measuring flaps is to leave the cicatrix in the part least exposed to injury in the man's occupation. Very few cases of machine accidents to fingers occur, which do not need surgical interference.

Dr. Meisenbach.—My experience is that the thicker the flap, the less liability there will be to have a painful stump. Unless there is a sufficiently thick covering to the stump, the consequent atrophic process, having little material to work on, is apt to go too far, and leave a poor surgical result. I think it better to leave a shorter member, but one which will never be a source of annoyance to the patient. It is not conservative surgery to save that which will be useless.

Dr. Lindley read a paper on "Papillomatous Tumor of the Ovary."

Dr. Mary H. McCean read a paper detailing "A Case Illustrating a Rare Cause of Tardy Labor."

Dr. Coles commended the very judicious manner in which Dr. McLean had managed her patient, acting upon the idea that membranes are sometimes normally adherent to the uterus. Madam LaChapelle's advice was to enter a sound or finger into the uterus, and sweeping it around to exercise a double function, namely, to detach adherent membrane and to stimulate tardy labor. The passage of a sound for this latter purpose, sometimes also detaches adhesions between the wall of the uterus and the membranes, which were not suspected to exist. Such cases, however, must be very rare; in most cases, even in the last stages of pregnancy, no such adhesions exist. I was once called in consultation to a case supposed to be extra-uterine pregnancy, because others were able to pass a sound and sweep it around without the least interference. The truth was that the sound was carried around between the uterine wall and the amniotic sac.

Whatever adhesions take place in pregnancy probably become loosened so as not to interfere with the progress of labor at the end of the ninth month. Just as the leaf of a peach falls from the tree when it ripens through a species of degeneration, so do those adhesions undergo a fatty degeneration at the end of gestation, so that the placenta and membrane are ready for easy separation, an event which probably takes place before labor begins. In a recent case, where at the end of the seventh month (the child having evidently been dead a month) the whole mass, child, membrane and placenta came away *en masse*, I found that the membranes had undergone complete fatty degeneration. As Dr. McLean has said, the treatment is to keep the patient well under opiates, chloral being one of the best, and to see that the membranes are not ruptured when separating from the uterine wall, which last is an unfortunate accident in the early stage of labor.

Dr. W. G. Moore.—I recently saw a case similar to the one reported by Dr. Coles, in which a fetus of five months, dead, was delivered with placenta and membranes intact. The placenta was so fatty that hardly any recognizable tissue existed. The child had evidently been dead several weeks, and rather curiously its birth was attributed by the mother to an effort on her own part to produce a criminal abortion.

Dr. Hurt.—To my mind it seems scarcely reasonable that the placenta should be separated by fatty degeneration, since such a process would interfere with the fetal an-

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maternal circulation which should be increased *pari passu* with the growth of the child up to the very commencement of labor. It seems to me that the uterine contractions necessary for fetal expulsion, weaken the attachment between placenta and uterus, sufficiently to effect easy expulsion of the placenta after the delivery of the child.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting March 1, 1888.

DR. LOKGANER presented the following for Dr. Holmes:

The case of Mrs. B., æt. 50 years, married at 15 years, nullipara, menstruation always scant and painful, is remarkable on account of a series of reflex symptoms, of death from exhaustion and pain, without organic disease other than ovarian, and simplicity of operation needed as revealed by autopsy.

Mrs. B., consulted me April, 1886, having been treated elsewhere for muscular rheumatism. Pains were of lancinating character along left sciatic, shooting down to ankle. Examination showed ovarian tumor, probably cystic. Prof. Goodell confirmed diagnosis and advised operation which patient then and subsequently refused. The chief complaint was at first the pain posteriorly along left leg and thigh, which finally also involved similar relations on right side. In the course of a few months, a persistent tumor attacked both lower extremities, at first alleviated by manual pressure, subsequently not, and later still extended to arms and hands and later yet to muscles of face and lips, giving much the appearance of violent chorea, interferring markedly with clear enunciation.

During the latter part of life there was oft repeated and painful mitrurition, with bloody urine, violent pains starting in lumbar region and shooting along into the bladder and urethra, raising a strong suspicion of renal calculus.

This with the other lancinating pains, the tremors and nervous exhaustion consequent upon the many months illness, caused great suffering, the patient often wringing her hands and grasping her hair in agony. Hypodermics of morphia, ¼ to ½ gr. gave markedly greater relief than same doses by mouth or rectum, even frequently repeated. The apparent increase of tumor was very slow.

Autopsy indicated only slight omental adhesions, kidneys healthy. The bladder, uterus and the two attached cysts were removed a few hours after death. The dermoid cyst has a long slender pedicle, attached to the left cornus uteri. It was situated on the right side of the spinal column, opposite the third and fourth lumbar vertebræ, covered by loops of small intestine and by omentum to which latter it was slightly adherent. It was at first supposed to be a floating kidney which had undergone conversion into a cyst. Its size, shape and location were suggestive of such an organ. The cyst contained chocolate colored sebaceous matter; no hair or teeth. The wall of cyst contained calcareous plates. The right ovary is the seat of a multilocular cyst, the size of an average full term fetal head. The corpus uteri is undeveloped, the cervix constituting the larger portion of the organ. Evidences of chronic cystitis were present.

SELECTIONS.

THE REAL NATURE AND DEFINITION OF INSANITY.

BY C. H. HUGHES, M. D.

The *Medical Register* contains the following abstract and conclusion of a paper read before the Psychological Section of the International Medical Congress, September 6, 1887, on this subject.

The free will of every insane man is restrained and influenced by his disease. The free play of his volition is interfered with either by his disease direct, or the manner in which environments impress the relationship between his knowledge and his will. What he was accustomed to refrain from doing in his sane state because his reason told him was wrong, he no longer avoids doing, even

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though, in a manner, he sees, as formerly, that the thing is wrong. A something which he does not understand impels him to do wrong acts which the mental habit of his former life would neither suggest nor approve, and just as muscle is moved by previous sensory impression, conscious or unconscious, so the insane man's mind is moved to action by conscious or unconscious delusive impressions, and the normal volition is perverted or suspended thereby.

His actions may even have the semblance of entirely voluntary ones; judged independently of the deranged state of his mental organism they may even have the abstract qualities of voluntary deeds; or semblances of deliberation, postponement, and something of the appearance of motive, and yet be those of a will shackled or driven by disease.

Since insanity is not necessarily total destruction of mind, but only mind morbidly modified in its movements by underlying disease, neither premeditation nor deliberation, nor previously-planned purpose, nor ultimate motive, do necessarily destroy the possibility of insanity, though the display of these semblances of healthy mental action, should add extreme caution to our conclusion of mental disease. Nevertheless, we do find overwhelming cerebro-mental disease to excite an overmastering power in certain directions plainly discernible to the eye of the skilful and expert alienist, when the general conduct of the individual presents on the outward semblances to the casual observer, of mental soundness.

What is it then that we find in these obscure and interesting forms of mind deranged?

It is the underlying change in the organic feeling by which causeless suspicions arise, supplanting the previous healthy confidence, and the character and conduct changes in harmony with the morbid feeling, the conduct natural enough if the changed feeling were only a justifiable one, brought on by proper and natural external influences, instead of proceeding from within.

Under this disease-caused change of feeling morbid and groundless aversion takes the place of natural attachment, hate and violenc the place in the heart of love and kindnes suspicion and distrust the place of confidenc fear the place of former courage, and morbi impulsions of normal conduct.

Melancholia supplants the natural hop and an innumerable train of self-recrimin tions and morbidly unreal forebodings su plement the individual's natural characte istics. Lasciviousness takes the place, m be, of the *natural chastity*; impurity a wickedness dwell in the once pure and cle heart; arson, theft, murder, rapine, come in minds which in their sane, undeluded estat would not entertain a thought of crime. B the change is in the organic feelings; a susceptibility to the impressions of enviro ment; and whether it be expressed in act grossest impropriety and crime, or in nothi so marked as to attract general attention, th insanity is the same.

In regard to the human mind in disease, th thing which the true alienist expert search for most intently is neither the ordinarily looked for violence and delusion or generally *bizarre* conduct and unseemly speech, but th underlying transformation in the self-feelin post or ante natally acquired, which makes change that only disease could have wrough a something in the mental texture and ce bral foundation, which impresses itself up the psychical character, in varying degre and shades of departure from natural men conduct, often markedly perceptible, as oft scarcely appreciable to ordinary observati It is this that constitutes the true insanit the altered character is its more outwa sign.

The true nature of insanity is not therefo in this or that aggregation of symptoms co stituting a more or less prolonged departu from the ordinary and natural character the individual, but in the transformed me tality, wrought by immediate or remote a cestral disease, often and most frequently both, which makes certain mental feeling an conduct at variance with the natural menta character possible; a change which makes no only a symptom grouping made up of morbi

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goism, morbid aversion, morbid fear, dis-ust, hate, suspicion, dread or violence, spe-al-sense delusion and insomnia, or the re-erse of these, its characteristic, but many lendings of these or a single one intensified, s distinguishing symptomatic feature.

The attempt to make of mind a certain finite entity and to frame definitions of in-ity upon a metaphysical misconception, or her inadequate, incomplete or partial con-ption of mind; and to describe something ferent from that as insanity, underlies ny of the failures at defining insanity. is and a searching after a definite symp-matology has been at the bottom of all fail-s in this direction, and a definition once ched upon a symptom-grouping basis, it m time to time became necessary, as new d undoubted forms of cerebro-mental dis-se came fairly into view, to make for them ew morbid categories. Thus have imbecility nd cretinism, idiocy, epilepsy, and inebriety, n active continous form, delirium tremens, brile delirium, etc., been excluded.

Yet the insanity stage of epilepsy, delirium nd inebriety, and the constantly abiding nditions of feeble-mindedness, congenital blishness, hysteric catalepsy, etc., are con-ions of insanity that should be embraced very comprehensive definition of a disease which the individual's relation and response normal and natural environments is abnor-l and unnatural. A cerebro-mental organ-n that responds abnormally to the impres-ns of its environment, is just as much an ane one, whether its defect may have re-ted after birth, in the process of extrauter-e development or *in utero*, or from blood-praving and nerve-undermining causes not e to voluntary or accidental parental vice crime. Arbitrary distinctions, without l difference except in some accidental or idental causative circumstances, are not tifiable, and a definition of insanity that t exclude prenatal causative influences and ke exceptions of intrauterine accidents and genital damage, is too artificial, narrow d unnatural to endure.

It would be as reasonable to endeavor to define disease with exceptions based on *post-mortem* changes for instance, in these exceptional cases, where petrifaction supplants the ordinary putrifaction.

The many descriptions of insanity, all of which have had their day because they were incomplete and partial descriptions, representing each writer's more or less comprehensive conceptions of mind and its symptomatological expression in disease or in its disordered state, have all had this fault of being too narrow or too broad. More definitions have accordingly sought to define what in the minds of different authors insanity *ought to be, than what it really is*, and when new forms and phases of mental derangement have appeared, they have, if not squaring with these pre-conceived formulæ, been contested and denied a place for a time in psychiatry.

It would be far better to have no such definite conceptions of mental aberration, than to entertain views of its nature so circumscribed as to exclude from recognition new forms that must inevitably appear in the advance of civilization, insanity's chief great causative factor, and in the progress of psychiatry, which must take account of, and find an appropriate place for, the most erratic and varied forms of mental disease, which are yet to be revealed, through the increasing, and still to be increased, intricacies of the cerebro-mental activities. Because as culture advances and the arts of civilization multiply, the strain upon the brain increases, and the activity and number of its psychical centers grow and multiply. We may learn more of mind through physio-cerebral pathology, than through its physiology alone, and reach more accurate conclusions than the metaphysicians did who ignored all pathological data. Psychiatry is still suffering in her definitions from the unnatural and abnormal influence in the metaphysics of the past.

THE *Cincinnati Medical News* says the profession of Cincinnati will raise near ten thousand dollars, for the entertainment of delegates of the American Medical Association, at the meeting in May.

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AMERICAN MEDICAL ASSOCIATION.

The Thirty-ninth Annual Session will be held in Cincinnati, Ohio, on Tuesday, Wednesday, Thursday, Friday, May 8, 9, 10 and 11, commencing on Tuesday at 11 A. M.

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are organized by representation in their respective State Societes, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States."

"Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: Provided, however, that the number of delegates for any particular state, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association."

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, at once, list of their delegates.

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries are by special resolution, requested to send to him, annually, a corrected list of the membership of their respective Societies.

Sections.—"The Chairman of each Section shall prepare an address on the recent advancement in the branches belonging to his Section, including such suggestions in regard to improvements in methods of work, and present, on the first day of its annual meeting, the same to the Section over which he presides. The reading of such address not to occupy more than forty minutes. * * *"—*By-Laws.*

Practice of Medicine, Materia Medica and Physiology: Dr. (vacant) Chairman; Dr. N. S. Davis, Jr., 65 Randolph St., Chicago, Ill., Secretary.

Obstetrics and Diseases of Women and Children: Dr. Eli Van De Warker, 45 Montgomery St., Syracuse, N. Y., Chairman; Dr. E. W. Cushing, 1 Hotel Pelham, Boston Mass., Secretary.

Surgery and Anatomy: Dr. Donald McLean, 72 Lafayette Avenue, Detroit, Mich., Chairman; B. A. Watson 124 York St., Jersey City, N. J., Secretary.

State Medicine: Dr. H. B. Baker, Lansing, Mich., Chairman; Dr. S. T. Armstrong U. S. M. Hosp. Service, Secretary.

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A member desiring to read a paper before a Section should forward the paper, or its tittle and length (not to exceed twenty minutes in reading), to the Chairman of the Committee of Arrangements at least one month before the meeting.—*By Laws.*

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Permanent Secretary.

Philadelphia, 1400 Pine St., S. W. cor Broad

THE CASE OF HIS IMPERIAL HIGHNESS THE CROWN PRINCE OF GERMANY.

BY SIR MORELL MACKENZIE, M. D.

SAN REMO, February, 12, 1888.

His Imperial Highness the Crown Prin

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of Germany having expressed his wish that I should now place on record my opinion of his case, the oportunity is afforded of correcting some of the statements which from time to time have been inaccurately attributed to me.

The general idea is that I am of opinion that the disease from which His Imperal Highness is suffering is not cancer; (In this statement the words "cancer," "cancerous," and "malignant," are used synonymously.)the view on the other hand, which I have consistently maintained is, that there never has been any proof of the existence of cancer.

To enter more into detail: When I arrived in Berlin, last May, I stated to my colleagues that, in my opinion the appearances seen in the throat were of a negative character, that is to say,that the disease might be either benign or malignant, and that its nature could only be determined by microscopical examination. A portion of the diseased tissue having been taken away be me from the throat of His Imperial Highness, it was submitted to Prof. Virchow, who could not detect in it anything of a malignant nature. Repeated examinations by Prof. Virchow of other portions removed by me yielded similar results.

In the month of July, whilst His Imperial Highness was staying in the Isle of Wight, I pointed out to more than one of his august relatives that the danger that I most dreaded was the occurrence of perichondritis at a future date, and three months later this fear was proved to be well grounded. At the end of October and early part of November entirely fresh symptoms appeared, and at that time the local disease presented an appearance which was consistent with the diagnosis of cancer. It was then impossible to obtain any fresh microscopical evidence in the matter, and I considered it safer accordingly to treat the case as one of a malignant nature; at the same time, however, I drew up and submitted to my colleagues a protocol, in which I stated that although the disease at that moment looked like cancer, I could not agree that the malady was proved to be malignant until a further microscopical examination had been made. The document in which I set forth my views was forwarded to Berlin to be placed in the State Archives. Although the unfavorable symptoms then present were explicable on the ground of the existence of cancer, yet it was clear to the majority of the physicians at that time in attendance that perichondritis had supervened.

In the middle of December, however, the unfavorable signs had passed away, and there were no longer any clinical symptoms of cancer. Microscopical evidence on the subject was, however, still wanting. This was furnished at the end of January, when a slough was expectorated from the very spot which had presented such a highly suspicious appearance in November. This slough was most carefully and repeatedly examined by Prof. Virchow, and the result (which is now published) again shows that cancer could not be detected.

To recapitulate: In my opinion the clinical symptoms have always been entirely compatible with non-malignant disease, and the microscopical signs have been in harmony with this view. I need only add that although in nearly every case of laryngeal disease it is possible at the first inspection to form an accurate opinion as to the nature of the disease presenting itself, yet, in a few rare instances, the progress of the complaint alone permits its character to be determined. Unfortunately, the case of His Imperial Highness is among the latter number, and at this moment medical science does not permit me to affirm that any other disease is present than chronic interstitial inflammation of the larynx combined with perichondritis.—*Brit. Med. Jour.* Feb. 18. 1888.

THE ADMINISTRATION OF CHLORAL.

Battle's Bromidia is a clean and palatable compound of approved hypnotic principles. The proportion of bromide of potassium in its composition, to the chloral, could well be doubled for most of the purposes for which such a hypnotic combination is indicated. The directions accompanying this excellent hyp-

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notic combination suggest a criticism. The injunction to not exceed three or four of the doses indicated in twenty-four hours, and to administer preferably during the evening, or night-time, would avoid many of the evil results which follow the injudicious use of this and all similar narcotics.

Those of our readers who desire to use this compound in practice (and when its ingredients are indicated, no better mixture can be found) will find it gives much better satisfaction in states of mania and high cerebral excitement, in double the ordinary dose at about nine o'clock P. M., or, at an hour or two before the patient's ordinary time of going to sleep, when well, adding thirty grains more of bromide of potassium, and plenty of peppermint or other aromatic water, to protect the lips from being blistered by the chloral, as is liable to happen if chloral is not given well diluted. We write this prescription thus:

℞	Bromidiæ - - -	ʒij.
	Kali bromidi - -	ʒss.
	Syr. tolu - -	ʒiij.
	Aq. menth. pip. q.s. -	ʒj.

Ft. haustus in aqua q.s. Sig. Give at eight or nine P. M., in plenty of water. Repeat once during night if necessary.

Fifteen grains of chloral, given every hour in cases of high maniacal excitement, may prove abortive, and the patient's blood may, at the end of five or six days, or even hours, of such treatment, become vitiated and depraved, the vital centers of the medulla weakened, and when, as sometimes happens, the attending physician, or another one, called in, becomes desperate, and gives a very large dose of chloral, no reaction follows the profound hypnotic impression, the cerebro-medullary centers being completely overwhelmed and incapable of that physiological rest and rebound which should be the aim and result of all therapeutically induced slumber.

Fifteen grains of chloral in mania, as a general injunction, is bad. A full dose at the right time, when nature is likely to incline most readily to rest, and not more than once repeated, and without previous small, abortive, and of course damaging doses, is better. No experienced Alienist would stereotype such a direction for mania and states of high cerebral excitement.

We make these remarks because bromidia is a combination the profession does not wish to dispense with, and a good remedy may be put before the profession with bad directions.

The administration to epileptics of anything with chloral in it during the time when the patient is going about, is also unscientific advice. The same criticism holds good in regard to nervousness and irritability in persons going about. It is dangerous to give chloral to persons who are not in bed, or going immediately to bed, to remain till the effects of the chloral pass off. If this danger is kept in mind, and chloral is only given to recumbent patients late in the day, in the evening or night-time, in a single, or at most, a duplicated dose, nicely adjusted to the demands of the case, no untoward result need ever follow its use.

We should never give chloral for headache or neuralgia in the day-time, unless the patient should be sadly in need of and ready to go to sleep.

Chloral imbecility may readily be induced by giving repeated small, ineffectual doses, and it requires large doses to prove effectual in great cerebral or sensori-motor nerve excitement, when the patient is sitting up or going about.—*Editorial, Alienist and Neurologist*, Jan. 1888.

Common Salt in Migraine.—Dr. Rabow, of Berlin, finds that half a teaspoonful or more of common salt, taken as soon as the premonitory symptoms of an attack of migraine begin to show themselves, will frequently cut it short in about half an hour. Similar treatment has also proved of service in epilepsy, as was remarked some years ago by Nothnagel, the explanation being probably in both cases that a violent reflex action is set up.—*Medical and Surgical Reporter.*

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REPORTS ON PROGRESS.

PHYSIOLOGY.

BY A. H. MEISENBACH, M. D.

I. CENTER OF RESPIRATION.—*Deut. Med. Zeit.*

II. THE EFFECT OF NATURAL OR ARTIFICIAL SLEEP ON RESPIRATORY OXIDATION.—*Deut. Med. Zeit.*

III. TOXICITY OF EXPIRED AIR.—*Deut. Med. Zeit.*

IV. INNERVATION OF RESPIRATORY MOVEMENTS.—*Zeitschrift. f. Biologie*, N. F., Bd. V.

V. PERIODIC AND "LUXUS" BREATHING.—*Archiv. f. Anat. u Physiol.*

VI. THE CHEYNE-STOKES RESPIRATION.—*Canada Lancet.*

CENTER OF RESPIRATION.—BROWN-SEQUARD.

Brown-Sequard has heretofore shown that simple injury of the bulb in the region of the point of the calamus is followed by cessation of respiration and death. On the other hand, he has found that this part of the bulb can be excised without destroying respiration and life. From this he concludes that the center of respiration does not lie in the bulb. Furthermore, he has demonstrated that a lateral half of the spinal cord can be exsected without modifying the respiration, one side of the spinal cord sufficing for the office of respiration of both sides of the body.

From these facts alone Brown-Sequard concludes that there does not exist a single bulbar or medullary centre of respiration, and that if in consequence of a lesion of the bulb or medulla, respiration ceases, this does not occur on account of a destruction of the injured point, but on account of a simple stimulation of the part.

In order to prove that a certain function belongs to an organ, the destruction or injury of the organ must destroy the function. It has been proven by Brown-Sequard that this is not applicable to certain points of the nervous system, which have always been considered as centers of respiration.

THE EFFECT OF NATURAL OR ARTIFICIAL SLEEP OR RESPIRATORY OXIDATION.

In order to study this question L. De. Saint Martin confined a dove for a number of days in a respiratory apparatus, and divided his observation during 24 hours into two periods, one taken at night, the other in the day time. An animal fasts and sleeps at the same time. Martin studied a third condition. He let the dove fast for twenty-four hours. From these observations he concludes that independent of the deprivation of food, natural sleep diminishes the amount of expired carbonic acid gas one-fifth, and the amount of the inspired oxygen only one-tenth.

In order to determine the effect of artificial sleep induced by morphine, chloral and chloroform, Martin experimented on dogs. He placed gutta percha muzzles, hermetically sealed, on the animals. These muzzles possessed a double valve, according to Mueller. The inspired air passed through a measuring apparatus, the expired air into a rubber bag. Each experiment lasted five minutes. The first experiment was made on the animal in a normal condition, the second in a state of narcosis.

Martin found that during morphine narco-

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sis the proportion of CO_2 was decreased one-half, while during chloroform or chloral narcosis the amount of CO_2 was decreased to one-third of that expired in a normal condition. As the proportion and combination of the gases of the blood depends on the energy of respiratory oxidation, Martin determined to study the relation of the gases to each other under chloroform, and he arrived at the conclusion that during a sufficiently long chloroform narcosis, the blood is deprived of oxygen and is saturated with an excessive amount of carbonic acid gas.

Toxicity of Expired Air.

Brown-Sequard gives as his opinion that if the toxic principle of expired air could be isolated it would show its toxic effect in doses of 0.001. He had previously called attention to the symptoms produced by a subcutaneous injection of a fluid containing the toxic principle of expired air. They indicated principally an irritation of the base of the brain, as shown by the hyperemic condition of the intestines and other organs, especially of the liver, on post-mortem. Later experiments show also that the blood of animals, poisoned by carbonic acid gas a short time before death, gives evidence of the presence of the poison and has a certain degree of toxicity. In a subsequent meeting of the Academy of Science, Paris, Brown-Sequard and A. d'Arsonval reported that they had proven that the poison of expired air is an alkaloid. They injected a condensed fluid containing the poison subcutaneously in rabbits, and found that it killed the animals as rapidly as by intravenous injection. The animal died without convulsions, and it was found that the heart and large vessels, especially the vena cava, were filled with bright red blood, whereas, ordinarily, the veins are filled with dark colored blood. The poison is one of the most violent of irritants to the base of the brain. At a temperature of 100° F., it still retains its poisonous properties in an increased degree which goes to prove that the poison can not be due to a microbe. It is placed among the class of poisons by Armand Gautier as leucomaines and ptomaines. Resumé:

1. Expired air contains a poisonous principle more potent in its action than carbonic acid gas.

2. The breath of man and animals contains one of the strongest poisons.

Innervation of Respiratory Movements.

In a very able paper, Dr. Max Marckwald gives a number of original experiments in which the movements of the diaphragm are graphically recorded by the direct application of the flattened end of a lever to the under surface of the muscle through a small opening in the abdominal wall. Among the conclusions arrived at may be mentioned the following:

No respiratory centers can be said to exist above the medulla oblongata where are situated an easily excited inspiration center, acting in normal breathing, and an expiration center excited with more difficulty, acting in dyspnea.

Automatically, the center commonly gives rise to respiratory spasms, regular and rhythmical breathing being reflex actions, excited by the tonic action of the vagi, in quiet respiration.

Impulses from the higher centers can also reflexly excite regular respiratory movements, controlling or compensating those produced by the vagus. When these impulses from the higher centers are partially in abeyance while the action of the vagus is unimpaired, periodic breathing (Cheyne-Stokes) may appear. Impulses from the skin have probably little effect while the vagal and cerebral channels are intact, but when these are interfered with, the sensory nerves may excite a regular series of respiratory movements.

The afferent fibers of the fifth, superior laryngeal, olfactory and splanchnic nerves, slow respiration, and may cause a stand-still in the position of expiration. The glossopharyngeal does not alter the rate, but can produce slow inhibition. The normal excitation of the respiratory center does not depend

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upon the condition of the blood—either its want of oxygen or excess of carbonic acid—as regular movements continue for some time without circulation; nor can the mechanical theory—the excitation depending on the degree of distention of the lungs—be accepted, as rhythmical movements continue when the thorax is opened and lungs excised.

Periodic and "Luxus" Breathing.

Prof. Angello Masso, of Turin, gives in an elaborate paper, illustrated with many tracings, the results of researches on the respiratory movements of man and animals. He points out that a periodicity in the respiratory rhythm is much more common than is generally supposed, and can be produced by ordinary sleep or by the action of narcotics.

Under ordinary circumstances the respiratory movements are more extensive and rapid than the organism requires. This "luxus" respiration disappears at high altitudes when the air becomes thinner. When the degree of periodicity becomes more marked, the breathing may be called remittent or intermittent as in the Cheyne-Stokes respiration. In a dog under the influence of chloral hydrate, the inhalation of oxygen had no effect on the duration of the periodic intervals of cessation of breathing.

He inclines to the view that a continuous relationship between the chemistry and the mechanism of respiration must be abandoned. The different departments of respiratory motion, facial, thoracic, diaphragmatic, etc., are capable of independent action or variation.

Although not quite independent, yet the mechanisms of respiratory movements are so far automatic as to be able to surpass the chemical requirements of the organism, the vitality of which is indicated by the activity of the regulating nervous centers. Thus when the excitability of the brain and spinal cord increases, a greater gas interchange occurs in the lungs than is necessary for the activity of the body, and, during sleep, the motor mechanisms of respiration indulge in periodic rests, and nervous excitation is lessened without the result of any interference with the chemical changes in tissues or blood.

The periods of variation in the respiratory movements do not correspond with those in the blood-vessels. If a variation be caused during the regular breathing, it is followed by a series of successive variations, occurring periodically.

The Cheyne-Stokes Respiration.

In a paper read before the Physiological Section of the Ninth International Medical Congress held in Washington, D.C. 1887, Dr. Thos. W. Poole, gives his views "On the Necessity for a Modification of Certain Physiological Doctrines Regarding the Inter-relations of Nerve and Muscle." He says:

What seems a lower depth of absurdity, if possible, has yet to be reached in the explanations of the Cheyne Stokes respiration. I quote here from Dr. L. Sansom's "Physical Diagnosis of the Heart," (P. 37) by whom Traube's theory on this subject is said to be "the most plausible." According to Traube, "the first thing which occurs is the establishment of a condition of impaired irritability of the respiratory center through mal-oxygenation; the long respiratory arrest gives time for the accumulation of carbonic acid in excess in the blood. Arrived at a certain maximum this begins to stimulate, slowly and imperfectly at first and afterwards in increasing degrees, the center, so that it develops the respiratory efforts till they culminate in dyspnea. Then as the center ceases to be stimulated or becomes exhausted, dyspnea again supervenes."

It will be observed that here the deficiency of oxygen and subsequently the presence of carbonic acid are made to play opposite and antagonistic parts! The lack of oxygen (instead of stimulating the medulla, as supposed by Dr. M. Foster) first enfeebles the respiratory center, in the medulla, and then the same blood, still deficient in oxygen, but now loaded with carbonic acid, counteracts the previous depression, and tones up the weak nerve center, so that ere long it displays extraordi-

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nary activity. But, unfortunately, this exhilarating pabulum—carbonic acid—is soon exhausted, and the nerve center resumes its former feebleness till a new supply can be procured. The physiologist is certainly quite impartial, and allows the rivals to have their "innings," turn about. How such nonsense as this "most plausible theory" could find a place in physiological literature seems explicable only on the exigency of the hypothesis so long in vogue.

Filehne's theory in explanation of this state is more complicated, and at least equally absurd. Instead of the respiratory center being stimulated (as Traube says), it is the vasomotor center which is excited by the presence of carbonic acid. Arterial contraction follows till "a gradually increasing anemia of the respiratory center" is brought about. This anemic condition excites the respiratory center "and inspiration becomes more and more deep," till oxygen is supplied to the blood; "the arterial spasm is thus relieved," owing to the freshly oxygenated blood failing to stimulate the vasomotor center (so as to contract the arteries), as the carbonic acid had previously done. With the relief of arterial spasm, and a consequent normal dilation of the arteries, "the anemia of the respiratory center passes off, and with it the exaggerated impulse to respiration, and breathing once more becomes superficial." (P. 137.)In other words the respiratory center functionates best when it is supplied not only with non-arterialized blood, but when it has too little even of that; as soon as the anemia passes off, and this nervous center gets a fair supply of blood, it ceases to act—suspends business—till the better times of bad blood and deficient blood come round again, when it is moved to activity once more!

There is still another explanatory theory to be noticed, which I find referred to editorially in the *Canada Lancet* for February, 1886: "Bramwell, who follows the teaching of M. Foster and others, supposes that the respiratory center consists of two portions, one accelerating (or motor), and one inhibitory. He further believes that these two portions are acted on in opposite directions by the blood, whether arterial or venous. Thus while venous blood stimulates the discharging cells of the center and depresses the inhibitory portion, arterial blood acts in exactly the opposite direction." At the close of the period of apnea, the discharging portion of the center is stimulated by the venous blood," with its excess of carbonic acid, and this same blood, at the same time is depressing the rival, or inhibitory part of the center. The motor or discharging portion of the center triumphs; respiration becomes established and even exagerated. Unhappily, the victor fails to "hold the fort." As soon as the blood becomes "fully oxygenated," the "inhibitory portion becomes stimulated and gradually overpowers the discharging portion," so that "the respirations grow weaker and weaker until the state of apnea results." Then the suspension of breathing restores the venous character of the blood and accumulates a store of carbonic acid, the stimulation of which reanimates the center previously depressed by the presence of oxygen in the blood. Such appears to be the scope of this theory.

In this, as in the previous explanations, arterial blood is made to play the part of a depressor and paralyzer of the respiratory process, which it is constantly tending to arrest; but while paralyzing one portion of the respiratory center it is stimulating another; and a similar double character is attributed to the action of venous blood. Thus during the brief time from the beginning of apnea to the culmination of dyspnea—a period rarely exceeding one minute—the blood passing to the brain is called upon to exert four different and even diverse effects; first as venous blood stimulating one part of the respiratory center and paralyzing another portion of the same center; reverse effects being produced by the same blood on its becoming oxygenated. One is really at a loss to understand how such an explanation could have been admitted to a place in physiological literature. Again it is the exigencies of an erroneous theory which have led to such a complicated and unsatisfactory hypothesis. If it be asked

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how the state of apnea is induced by forced vigorous respirations, if it be not due to an excess of oxygen introduced into the blood, and how the opposite condition or demand for air by breathing seems to attend the absence of oxygen and the presence of venous blood, I can only answer as to the last that if no better explanation than that venous blood is a stimulant has yet been found, some better explanation is surely to be looked for. And as to the state of apnea referred to, I find Dr. Austin Flint stating that "according to Hoppe-Seyler, apnea, in the limited sense above mentioned, is to be attributed, not to an excess of oxygen in the blood, but to fatigue of the respiratory muscles." (Prac. of Med., 5 Ed., p. 70.

A NEW THEORY SUGGESTED.

Dr. Sansom regards the condition of the respiratory center in this case as one of paresis and direct exhaustion. He shows that during the apneal period "the arteries are strongly contracted." The proof of this is found in the rise of arterial tension, in the depression of the "great fontanelle" of the head, and also in the arrest of the process by the inhalation of nitrite of amyl, which dilates the arteries. On the theory of these pages, arterial contraction is due to vasomotor nerve depression or paralysis; and accordingly we find here that the vasomotor center, as well as the respiratory center, is depressed in function. It has been amply shown above, that contraction of the arteries occurs in the dying and is complete in death. It is also one of the prominent phenomena during the last stages of asphyxia and is invariably attended by venous fulness. The condition present during the stage of apnea in the Cheyne-Stokes respiration, with its contracted arteries and dilated veins, appears to correspond very closely to that present as death approaches and in the latter stages of asphyxia. The original paretic and exhausted condition of the respiratory and vasomotor centers is aggravated by the further depression caused by mal-oxygenation of the blood; which, when venous and loaded with carbonic acid, is invariably a depressing, and never a stimulating agent to nerve function. Vasomotor nerve failure induces contraction of the arterioles, systemic emptiness and venous engorgement, as the foregoing examples abundantly prove; and as a consequence, the great mass of blood "becomes lodged and hidden as it were" in the great venous trunks. At that moment death is very near, but as the heart continues to beat, it is fair to assume that a small quantity of blood still finds its way through the lungs, and, from its very scantiness, is capable of being aerated by means of the exchanges of gases still going on in the lungs, owing to the presence of residual air during the temporary, partial or complete arrest of respiration. As a consequence the quantity of blood reaching the nerve centers, though small, is at least partially oxygenated, and serves to revive the function of these centers "imperfectly at first," but with momentary improvement. The effect of this revival on the vasomoter center, is to facilitate the dilation of the arterioles; in which the pulmonary vessels share, permitting, ere long, the inrush of venous blood from the distended vena cava and portal system, and its transmission onwards through the heart and lungs. This corresponds to the period of increase in respiratory function, in which the laborious efforts of a feeble mechanism have been mistaken for an "exaggerated impulse" from excited and overacting or "exploding" nerve centers. Meanwhile, impure blood from the venous reservoirs (finding an entrance through the now fairly dilated pulmonary vessels) begins to fill the lungs in such a quantity (as it is drawn onwards by an inequality of pressure, towards the as yet unfilled arteries) that the whole mass of blood, failing to be arterialized with sufficient rapidity, again becomes unfit for the maintenance of nerve-function and the perpetuation of processes depending upon it.

In such a case a previously weak organ or center is the first to suffer. The medulla oblongata is such an organ in this case, and its contigous centers for respiration and circulation fail together; bad blood and deficient blood, acting on centers previously paretic or enfeebled, have done their work, and again

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the respiration is suspended. The vasomotor center is again so functionally weakened that it loses control of the arterial muscle—the "inherent contractile force," which all physiologists assign to muscular tissue, thus freed (as in the example enumerated above) induces "the strong arterial contraction" referred to by Dr. Sansom, which contraction of the artery is all the stronger the nearer nerve force is to cease in the extinction of life. This arterial, or systemic contraction, again empties the lungs and refills the venous reservoirs from which the blood is again drawn, at first slowly and then again more rapidly, as the process repeats itself. Here, then, is an explanation of the Cheyne-Stokes respiration based upon sound, though as yet unacknowledged, physiological principles according to which paretic and enfeebled nerve centers are helped by their appropriate pabulum—oxygenated blood—and are overwhelmed and have their function suspended by what is naturally calculated to poison and paralyze them, impure venous blood, deficient in oxygen and loaded with carbonic acid.

ORIGINAL ARTICLES.

NECESSITY FOR NATIONAL QUARANTINE.

BY E. M. NELSON, M. D.,

[Read before the St Louis Medical Society, Feb. 25, 1888.]

Why should the St. Louis Medical Society take into consideration the subject of quarantine? Why should members of the medical profession or other citizens in inland towns and cities give themselves any solicitude concerning a subject which has generally been considered one with which only the seaport cities had any responsibility or interest?

I think that only a very few moments will be necessary to show that the subject which I bring before you tonight is not merely one of general scientific interest, although that alone would warrant its discussion by a society of scientific gentlemen, but that it is a subject in which professional men and good citizens all through the country, are just as truly and just as deeply interested in a direct and practical manner, as are the citizens of the port of entry upon whom have fallen hitherto the responsibilities and burdens of maintaining quarantine, when such diseases as cholera and yellow fever, have prevailed in Europe or in the West Indies, and the states of Mexico, and Central and South America.

As is known to all, Asiatic cholera has prevailed more or less extensively in different European countries, notably in Italy and France, during each of the last three years, and last fall was actually brought to our own coast, by two different steamers, the "Alesia" and the "Britannia," some deaths occurring during the ocean voyage, and others while the immigrants brought in those vessels were detained on the quarantine islands of the port of New York.

That it is by no means a figment of the imagination that the inland portions of our country even at points remote from the seaboard are practically interested in this matter is demonstrated by the fact that in 1873, epidemic outbreaks of cholera occurred in Ohio, Minnesota and Dakota, which were "caused by cholera poison packed up, in the household effects of imigrants, in Holland, Sweden, and Russia, respectively. These immigrants sailed from healthy ports, in healthy vessels and were subjected to the usual sanitary requirements of the period. They passed through New York and the intermediate territory without injury to the public health; but when their infected goods were unpacked in the interior of the continent, they liberated the poison which gave rise to the local outbreaks." [Report of Dr. Rauch.]

Some of the results of this outbreak in Ohio, I myself saw, being then resident in the Cincinnati Hospital.

Last fall at the time when the the passengers from the "Alesia" and "Britannia" were detained upon the quarantine islands of New York, a committee was appointed by the College of Physicians of Philadelphia "to investigate the efficiency of our quarantine arrangements for the exclusion of cholera and

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other epidemic diseases." This committee made a careful and thorough investigation of the quarantine stations at New York, Baltimore and Philadelphia, and came to the conclusion that "the quarantine establishments at Philadelphia and at Baltimore fail in the most essential requisites of the necessary number of properly equipped buildings for the isolation and observation of a large number of immigrants." At New York, also, the buildings were inadequate, water supply insufficient and improperly arranged, provision for the comfort and hygiene of the detained immigrants greatly lacking, attendance inefficient and proper supervision totally wanting. As the result of these grave defects the committee reported that the several hundred immigrants were detained upon the quarantine islands, for fifty-eight days, whereas, if proper arrangements for isolation, disinfection and observation had been made, all but a few of these passengers might have been released from quarantine in eight or ten days without risk to the country.

In view of the character of the report made by this commitnee it was determined to authorize the committee to issue an address to the medical societies of the country, and seek their cooperation in an effort to secure during the present session of Congress, such action as shall provide for the early adoption of a uniform and efficient quarantine of the exposed ports under the direction of the general government, all the expenses thereof to be defrayed from the national treasury.

The committee referred to have prepared and published such an address, copies of which I know have been received by some of you, and which is well worthy the thoughtful consideration of any gentleman into whose hands it may come. (It will appear in full in the next issue of the *St. Louis Courier of Medicine.*)

The address is too long to be read here at this time, but to some of the facts and arguments therein advanced I would respectfully call your attention.

With reference to the dangers involved the address gives the following forcible description:

"The hundreds of thousands of European immigrants who annually reach our country after starting from or passing through localities which are infected with contagious diseases, frequently in their persons or in their pestiferous clothing and effects carry with them, often as far as their ultimate destination, the active germs of these diseases, and the herding of these immigrants into the miserably ventilated and frightfully unsanitary quarters usually provided for the steerage passengers on steamships, the modern rapidity of ocean travel, and the great facility with which these swarms of people are soon distributed all over our country, combine to multiply the danger to the public health with which, under the laxity of our laws and the unsatisfactory administration of them, this incessant influx constantly menaces the country.

"In their enormous numbers, their poverty, and their squalor, and in their frequent transportation of all sorts of infections and contagions, these immigrants can be likened only to the oriental pilgrims, in whose track pestilence has so frequently followed. It is, indeed, with the extremest rarity that small-pox or cholera has in modern times been introduced into North America by any travellers other than the immigrant class. To take the proper means to guard the ports of entry against the infected persons and baggage of cholera immigrants would probably keep cholera from our midst; to do the same with small-pox immigrants, with the addition of compulsory vaccination and disinfection of personal effects, as an invariable condition precedent to the privilege of landing would go far toward banishing that scourge from the land; and the importation of scarlet fever, diphtheria, and like diseases might be prevented by similar measures". In answer to the objections "against quarantine as a means of protecting the public health from the assaults of preventible diseases imported by sea, the committee says they are only two: First, the alleged failure to keep out these diseases

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by this means; second, the alleged injury to maritime trade.

In their opinion the first objection finds a complete answer and explanation in the grossly imperfect state and the maladministration of the quarantine defences shown in their report. Inasmuch it as may be truthfully affirmed that the quarantine at the port of New York, in its establishment and administration, is one of the best, in many respects, at present found anywhere in the world, it seems absurd to argue against the capabilities of a *thoroughly equipped* maritime quarantine, *strictly administered*, from the historical failures of those establishments which, with respect to plant, equipment, and direction, have been obviously deficient in the essential requirements of a modern quarantine.

"The second objection," the committee says, "is always a serious one for a people extensively engaged in maritime trade. But it is met, we think, by a due consideration, in the light of modern knowledge, of the wide and essential difference between the requirments for the proper treatment, respectively, of the ship's cargo, and of the ship's inhabitants. It is the ship's inhabitants, with their personal effects, who almost invariably introduce the infectious germs into the country; the merchandise rarely or never conveys the contagion."

"With reference to the detention at quarantine of those of the ship's inhabitants who are well, it need be prolonged but little beyond the period of incubation of the particular disease against which the quarantine is directed. This detention the travelling and immigrant classes alone suffer, the commercial interests of the general public being undisturbed thereby."

"In view of the foregoing considerations, the committee would bespeak your earnest attention to the following propositions.

"A. The present methods of independent quarantine provided and regulated by seaboard states or cities, are essentially defective and insufficient for the exclusion from the United States of the diseases against which quarantine is directed."

"B. It is impossible adequately to protect the public health of the country against the importation of epidemic diseases by independent local maritime quarantine establishments:

"1. The history of epidemic diseases in this country serves to establish the truth of this proposition. Every epidemic of cholera, typhus or yellow fever, and several important epidemics of small-pox have been directly imported despite existing quarantine regulations.

"2. There is always great difficulty in obtaining sufficient appropriations of public money to defray the expenses of the necessary quarantine establishments and their proper maintenance. It is only possible, during periods of threatened invasion, to procure the considerable sums of money necessary for these purposes, whilst in the interim the money expended is greatly inadequate, though large amounts are constantly needed. When the invader is at our gates it is often impossible to plan, construct or repair, and properly equip and garrison an efficient line of defences."

The truth of this argument is well illustrated by the experience of our municipal and state boards of health, both of which are most effectually handicapped by the penny-wise and pound foolish parsimony of the legislative authorities who refuse to make adequate or any appropriations of money for public health purposes unless at times under the stress of special threatened danger from epidemic disease.

"3. Rival political and commercial interests are inimical to the perfect protection of the general public by independent and local quarantine."

Attention is then called to the danger which I have noted already, due to the possibility that immigrants with infected baggage may be transferred directly from quarantine stations to distant inland communities by rapid railroad journeys, without any prolonged sojourn and without adequate inspection or precautions being taken by the authorities of the seaboard

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cities through which they pass, inasmuch as it is but natural that municipal organizations, proverbially, like other corporations, without soul or conscience, should look after their own interests and pay little regard to the welfare of distant communities.

Furthermore there will necessarily be a lack of uniform efficiency in the enforcement of local quarantine measures without any general supervision; and the committee instance, as illustrating the danger of such lack of uniformity, the danger of an epidemic of yellow fever to which the little town of Biloxi, in Mississippi, exposed in 1886 not only the interior states but even the city of New Orleans itself, now apparently so well protected by her own system of maritime quarantine; and that to which, in 1887, the defenceless condition of the small port of Tampa, in Florida, exposed not only that state but others.

In the opinion of the committee with which it seems to me we must all heartily concur.

A national system of maritime quarantine is necessary as being (1) the only means by which the necessary protection against the importation of epidemic diseases in all our ports can be continuously secured; (2) the only practical means by which uniformity of establishment and administration con be assured. The third argument in favor of the *national* system of maritime quarantine seems to me one of the very strongest that has been or can be adduced. In the words of the address, "The benefits of quarantine inure to the welfare of the whole country: therefore, it is just that money should be as freely expended, when necessary, at one port as at another, without respect to their relative commercial importance. It is manifestly unfair that the seaboard cities and states should, as at present, be obliged to bear the entire expense of the quarantine establishments designed to protect the inhabitants of every region of the vast territory of the United States."

Among the advantages to be secured by a national organization may be mentioned:

"1. Suitably arranged and commodious buildings, provided with necessary furniture and appliances at all ports.

"2. An efficient corps of trained officials and assistants always on duty.

"3. The practicability of the concentration of force, money and attention at any threatened port without loss of time.

"4. Officials under control of the National Government, and free from local political and commercial influences.

5. The objects of quarantine would be furthered by full and reliable consular reports and sanitary inspection of emigrants at ports of embarkation, functions properly belonging to officials of the General Government."

The address of the committee ends as follows:

"In conclusion, the College of Physicians of Philadelphia, through its Committee, earnestly asks your prompt consideration of the matters herein set forth, and your active cooperation in an organized effort to obtain this winter such national legislation as will efficiently and with reasonable security protect the public health, not only from the dan- of the importation of cholera and yellow fever during the time that they are epidemic in countries with which the ports of the United States are in communication, but also from the almost incessant conveyance into the interior of the contagion of scarlet fever and small-pox by immigrants. The disappearance of cholera from the quarantine station at New York, without the development of the disease anywhere in the country, should be regarded as a fortunate occurrance, but at the same time a serious warning. This country has never yet escaped an epidemic of cholera when it has visited Europe. Sooner or later, the disease has invariably been introduced and has spread more or less widely throughout our land. We should, therefore, profit by the cold season, during which we are comparatively safe from the ravages of two of the most dreaded of our imported epidemic diseases, to prepare against a possible, and, as many believe, even a very probable, advent of cholera with the return of warm weather. We should use the present opportunity to arouse

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public sentiment and our national legislators to the necessity of wise, deliberate, far-reaching, and prompt action in behalf of the general welfare, by the establishment all along our coast of a thoroughly equipped and efficiently directed maritime quarantine.

"In the case that your Society determine to co-operate in securing the ends in view, we would respectfully suggest that you at once notify the committee of the fact, and, without delay, authorize a member of your body (whose name and post-office address should accompany the notification) to confer with the Committee either by correspondence or in person, for the purpose of deciding upon the details of a bill to be introduced in Congress early in the present session.

"If your co-operation be agreed upon, we would further suggest that, as a body and as individuals, you assist in influencing legislation by the following means:

"1. The passage of formal resolutions recognizing the necessity of National control of maritime quarantine, and urgently recommending the matter upon the consideration of your representatives in Congress.

"2. Strenuous efforts to enlist popular sentiment in support of such legislation.

3. The enlistment of the influence of the local medical and public press.

"Finally, in view of the necessity of inaugurating, at the earliest moment possible, the effort to secure the proposed legislation, we would earnestly request prompt action on the part of your Society and early notification thereof."

The address bears date Dec. 14, 1887, and I regret very much that the papers only came into my hands since the first of the present month, as it gives the appearance of tardiness to any action that may be taken by this society or of dilatoriness on my part in not bringing the matter forward at an earlier date, but your executive committee is aware that this is the first opportunity which has been afforded for presentation of the subject.

A PRACTICAL APPLICATION OF GLYCERINE FOR THE RELIEF OF CONSTIPATION.

BY DR. I. N. LOVE.

Read before the St. Louis Medical Society, Saturday, Feb. 3, 1888.

I desire to present to you this evening practical idea gained from my exchanges r garding a simple procedure for the relief acute and chronic constipation. I feel a most like apologizing for taking up you time in the consideration of so simple a ma ter, but I suggest as a plea in justification th fact that in the relief of disease nothin should be esteemed as trifling which tends i the direction of the securement of tangibl results.

There is no one disturbance which, superficially viewed, seems so trivial, and yet which may be the cause, directly or indirectly, of such positive injury to the human anatomy as constipation. In infantile life, and during all ages, particularly among women, it is a prevalent disorder. The number of cases of hemorrhoids, prolapse of the rectum, fissure and fistula of the anus, not to speak of the cases of fever due to absorption of ptomaines, all traceable to constipation, cannot be computed.

Any procedure which promises relief f this dire disturbance should be thoroughl tested, and if efficacious, adopted.

In the *Brit. Med. Jour.* of December 2 '87, Dr. Julius Althaus reports with the e dorsement of his own experience, a procedu recommended by Anacker for the relief habitual constipation, viz., the injection b means of a small glass, or hard rubb syringe, of a teaspoonful of glycerine int the rectum. An evacuation of the bowe usually occurs immediately, or within a fe minutes.

The rationale of its action given by Anac ker is that glycerine, in consequence of it pronounced affinity for water, when placed within the rectum, abstracts moisture fro it, causing hyperemia and irritation of th

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sentient nerves of the rectum, which leads reflexly to active and prompt peristaltic contractions, ending in defecation. The greater the accumulation of fecal matter in the rectum, the more decided the effect.

There is no unpleasantness or pain, but the action takes place *cito, tute et jucunde.* Sometimes a little fulness and throbbing is felt in the rectum for a few minutes afterwards.

Althaus expressed the opinion that this plan, on account of its simplicity and readiness, would be found to constitute a veritable improvement in the therapeutics of constipation. The simplicity and practical value of the idea impressed me the moment my eye fell upon the article of Althaus, and I demonstrated its value within an hour, and from that time to the present, a period of over six weeks, I have applied it many times daily where the conditions suggested it, and no matter what the age, or the degree of constipation, the response has been uniform and prompt. In a large number of infants and mothers where habitual constipation had been present from the birth of the former the remedy produced instantaneous relief, and coupled with broken doses of the mild chloride to stimulate the secretory system, I believe it furnishes a key to unlock the constipated condition which can be depended upon. I have directed the use of the glycerine injection at a definite hour each day, and have succeeded in establishing regularity in almost every instance.

There is no question about the securement of an evacuation almost immediately after the glycerine injection. The main point in order to obtain a result that will be lasting in character is to impress the patient or attendant with the importance of giving the injection at a certain time each day. In a few cases of piles and severe rectal irritation accompanying constipation, both conditions were more satisfactorily relieved by the glycerine than they had been previously by purgatives and sedative ointments.

This remedy is a valuable one in being efficient, simple and convenient. It is surprising that some one had not thought of and applied it before.

Apropos to this subject, Dr. Edward R. Mayer, of Wilksbarre, Pennsylvania, reports in the *Med. News* of Feb. 25, the use of an injection of two fluid ounces of warmed glycerine through a large flexible rectal tube, inserted at least seven inches, for the relief of intestinal obstruction due to paralysis of the muscular coat of the bowel, superinduced and accompanied by peritonitis. All other means for securing an evacuation of the bowel having failed, Dr. Mayer having been uniformly successful in the application of the Anacker-Althaus plan of using glycerine, it suddenly occurred to him to extend and amplify the method as above stated. The insertion and the injection produced no distress or immediate effect, and he left the invalid with directions to her nurse to cause the hips and knees to be elevated for a time. Upon his return after several hours, he found a greatly changed condition of affairs, comfort where there had been agony, and an anxious and pallid countenance replaced by beaming smiles and hopeful expression.

He was informed that within ten minutes after the administration of the glycerine enema, the patient felt a warm thrill and glow extending itself and permeating all through her intestines, followed by the vermicular movements which precede peristalsis, by audible and sensible displacements of gas, and finally by acute colicky pains. Within twenty minutes after the injection, there was an urgent call to stool, with the result of the escape of a large amount of flatus, and later, of a pint of semi-liquid evacuation of mingled yellow and green color, with some small scybalæ and a very pronounced odor. This evacuation was succeeded in an hour by another of a similar character. Considerable tympanites and tenderness still existed, but the abdominal distention was decidedly reduced, and the distress greatly relieved. The temperature, which had been kept depressed to about 100° by the antipyrin, soon fell to 99°, and the thready, jerking pulse of 120 had descended to 100, and the next day was not above 90, becoming rapidly soft and full. The nausea abated, and in a few hours disappeared and did not return.

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Enemata of warmed glycerine to the extent of two ounces each, were now administered night and morning during the next three days, each one resulting in a copious fecal evacuation, at first liquid, and then formed. The temperature varied during several days between 99° and 99.6°, the pulse soon dropped to 80, the tenderness gradually disappeared, and the distention slowly melted away. Milk punch, beef-tea, and revalenta arabica were greedily taken in small quantities, retained and digested, and upon the ninth day of the illness, the patient, while feeble, was entirely convalescent, a salutary diarrhea having set in after the enemata were discontinued, and soon ceasing. The only drug treatment employed after the symptoms improved, was a single very small dose of a saline laxative and a nightly hypodermatic of six minims of morphia solution, to secure rest.

The result in this case was extremely satisfactory, and very important in its suggestion of possibilities.

Dr. Mayer further says:

"If glycerine, injected by the method described, does really penetrate and permeate the upper colon or even the small intestine, it remains to be ascertained whether drugs combined with it as their vehicle, would measurably remain in the site to which they would be conveyed, or would be too completely washed away and extruded by the pouring out of large quantities of liquid, and by the violent expulsive efforts of the muscular coat of the intestines to exert their specified influence. Should it be that any considerable portions of such drugs would remain *in situ*, it is manifest that an improved method of internal medication is near at hand, and that such drugs as antifebrin, antipyrin, aloin, belladonna, calomel, croton oil, colocynth, ergotin, hydrastia, hamamelin, naphthalin, physostigma, the terebinthinates, and even nitrate of silver, and some of the germicides may be introduced by an entrance into portals hitherto closed to them excepting by a devious journey through the ordinary avenues. He would be a rash man who, with our present knowledge, should attempt to sterilize typhoid bacteria by a direct attack upon the agminate glands, but stranger things than this have happened, particularly of late, in the direction of gaseous rectal medication."

Grand and Lindell Avenues.

Toxic Effects From Small Doses of Potassium Chlorate.—Dr. A. F. Fuchs, of Fredonia, Wis, writes; "A robust male adult aged forty-eight, was ordered to use a saturated solution (1 in 20) of chlorate of potassium as a gargle for diphtheria. He was directed to take a very small swallow, three times in twenty four hours, directly from the bottle, in addition to gargling every two hours. After taking the fourth dose, the urine was noticed to be dark red, and a messenger came to inform me. The cholorate was discontinued; and in thirty-six hours the urine was of ordinary appearance.

"Macroscopically, the urine presented every appearance of a hemorrhage from the kidneys, but it was much darker than in any case of hematuria I have seen. Analysis showed the presence of blood. There can be no doubt that the chlorate was the cause. No other drug was given immediately before, or after, or conjointly with it. Three doses of calomel had been given, the last one six hours before beginning the chlorate. The patient affirmed positively that he had not taken more than a teaspoonful at a dose, but allowing four times that quantity, we would have forty-eight grains producing toxic symptoms."—*Med Record.*

A Legal Question Connected with Intubation.—An interesting question involving the right of a physician to recover his instruments from a dead body, has just come up in New York. Being called to a croupy child of poor parents, in order to relieve the dyspnea the doctor inserted a tube, and this being swallowed, a second tube was introduced, but the child died. The father refused an autopsy, but the physician insisted upon opening the body to recover his instruments. The question is, had he a right to do so?

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914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, MARCH 24, 1888.

HAMMOND'S PERPETUAL PHYSIOLOGICAL MOTION IDEA.

Every now and then some industrious reporter announces an interview with Dr. Hammond, in which the wonderful diagnostic discerning powers of Lombard's differential calorimeter are set forth; that imposing heat indicator, as we all know, being neither so convenient to handle as a good surface thermometer, nor a more accurate index of local temperature than the more commonly employed, but less imposing measures of head heat, to be seen in use in any neurologist's office. Later, the popular press announces that the dangerous cocaine habit is not dangerous at all, as demonstrated in the personal experience of Dr. H. who, in testing it, spent certain nights in cocaine exaltation and delirium, and the days following with his patients; and, lastly, from the same source comes the startling sensational announcement, like the exalted exaggerations of cocaine intoxication, that man is physically immortal, and dies only through ignorance of laws of eternal physical life, or willful disobedience of them.

What is the matter with Hammond? We have credited him with knowing better than to make such statements against the truth of nature and all the revelations of science, which is nature's interpreter. For if science reveals anything with certainty it is that decay and death are the conditions of life and inevitable, and the Book teaches it is appointed unto all men once to die.

Has H. caught the Christian science craze, or does he seek a clientele among those cranks? This last utterance of the New York medical oracle is perpetual motion revived in a new form. The mechanical perpetual motion cranks who, overlooking the inevitable resistance of friction, and the wear and tear of organism that cannot be replaced by fuel or protective precautions within the ken of man, worried the world with their wrong ideas, till the world grew tired. Is this race of cranks to be replaced by the perpetual physiological motion crank—the immortal life crank? Hammond says he sees no physiological reason why even at the present day men should die, yet all physiologists see ample physiological reason for the certainty of death wherever there is life. *Omni vivum ex ovo*, and the life that begins must end.

This last conception of Hammond's, of how to live forever, is like the exaggerated conceptions of cocaine intoxication at that stage when the mind cuts loose from its normal inhibitory anchorage of logical fact and sails like an inflated unbalasted balloon, into unknown realms empyrean.

In the New York *Mail and Express* article H. opens his argument that death is not a necessity thus:

"People die through their ignorance of the laws which govern their existence, and also from their inability or indisposition to obey those laws with which they are acquainted."

"From a knowledge of the causes of disease, greater than that possessed fifty years ago, and from the advance of medical science leading to a better method of treating the deviations from the normal standard of health to which we are subject, the life of a generation has within the period mentioned been lengthened from five to six years. That is, the average man, instead of living thirty years, as he did fifty years ago, now lives nearly thirty-six years. Looking at the question from this standpoint only, it will be seen that it is merely a question of time when his life will be extended to thousands of years, and that with an eternity of time his life also will be eternal."

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Then follows a consideration of the reconstructive and retrograde physiological metamorphoses in the system, and the argument that man might be made to live forever if the force demands of his system could be accurately supplied by nice adjustment of food.

This remarkable and misleading pseudo-scientific argument concludes by supposing if man could be exactly right in his calculations for the supply of his food, and know exactly to what extent his animal appetites might be gratified, what sanitation his house and person required, etc., etc., death would be impossible, and eternal life would be again his, and from a consideration of these points, H. concludes that people die:

1. From ignorance of all the laws of life.

2. From willfullness in not obeying the laws they know.

This argument has usually been used by the profession to justify the efforts at prolonging life; it has never been maintained by any scientist that human life could be made perpetual by such applied knowledge.

Science can not promise immortal length of days to man through any possible human providence, even though knowledge of the laws of life and living should become ever so perfect, any more than she can promise that by taking thought a cubit may be added to man's stature. This new view of Hammond's takes no account of the natural law of birth, evolution, maturity and decline, and the metes and bounds of nature. Under suitable cultivation and nicely adjusted nutrition, the trees of the forest might in time reach the sky, and canaries, eggs and all, grow to the size of ostriches, if his idea is based on scientific biological truth; but they don't. It is not, and they can't.

C. H. Hughes.

Traumatic Glossitis.

Dr. P. J. Thomson reports, in the *Lancet*, a case in which a girl, aged 17 years, had placed between her teeth a chestnut which she had just taken from a hot oven. As soon as she closed her teeth upon the chestnut it burst into her mouth. The front half of the tongue and the floor of the mouth were covered with a hot, white pultaceous mass which burned her severely. It was very tenacious, and she had great difficulty in getting it away. Her tongue became so swollen that there was scarcely room for it in her mouth. She was told to suck ice and rinse her mouth frequently with a solution of boric acid. At the end of three days a horse-shoe-shaped slough was removed from beneath the tongue. During the healing process the patient was advised to use her tongue as much as possible so that the cicatricial bands might be lengthened. She made a good recovery. This case is certainly unique as to its cause, though similar results are frequently produced by children attempting to drink concentrated lye used in country districts for making soap.

The Donders' Memorial Fund.

Professor Donders, the eminent physiologist, and ophthalmologists, attains his eightieth year May 27, 1888, and the law requires that his resignation as professor in the University of Utrecht shall take effect from that date. The *British Medical Journal* states that an English committee is working in connection with a committee in Holland to raise a fund to be known as "The Donders' Memorial Fund," to be devoted to some scientific purpose which shall connect in a prominent way his name with the institution in which he has labored for more than forty years. He has in his works a monument that will last as long as science lasts.

Hallucinations from Salicylate Soda.

Dr. Hiram Woods reports (*Md. Med. Journ.*) three cases of hallucinations following the administration of salicylate of soda. In one case 20 grs. were given every four hours and the hallucinations appeared shortly after taking the fourth dose and continued during the following day. The use of the drug was discontinued and the second day the symptoms had passed away. In another case four doses

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of 25 grs. each were given daily and hallucinations appeared about the fourth day.

In a third case 25 grs. were given four times a day. The delirium came on during the first ten hours of the administration of the drug.

If a patient be placed in bed and warmly wrapped, salicylate of soda given in 20 gr. doses every hour will cause profuse perspiration following the third or fourth, and sometimes the second dose. As Dr. Woods states, it is one of our best remedies for reducing and shortening the duration of intra-ocular inflammations.

The chief objection to its use as a diaphoretic is that it reduces the strength of the patient rapidly.

Hallucinations from Coffee.

A child two years of age took a slight cold and the mother gave it what she supposed to be "cough drops;" but a few minutes later she discovered that she had administered medicine which had been prescribed for an adult. Home remedies were used to counteract the supposed poison. Half an hour later I was called and I found the child seemingly well except that at intervals of a few minutes it would scream out and point to the floor, saying, "dog! dog!" I learned from the druggist near by that the medicine given was simple. A thorough investigation in the home elicited the fact that the grand-mother had given the child two teacupfuls of strong black coffee. The child was well on the following day.

A Sanitary Convention is to be held at Manistee, Mich., June 6 and 7, 1888. A circular of the same states that it is to be "not merely a doctor's convention, but it is for the people generally." Evidently its leaders want to hear "all sides of the question." One subject for discussion is: "Restriction and prevention of communicable diseases from four standpoints, (1) of the lawyer; (2) of the clergyman; (3) of the physician; (4) of the State Board of Health."

EDITORIAL PARAGRAPHS.

BY DR. I N LOVE.

How the principles of art are being applied to medical works these latter days! Look at Wyeth's and Gerster's Surgery with their artistic reproductions of photographs of surgical subjects taken from life, and the lithographic illustrations in Shoemaker's Practical Treatise on Diseases of the Skin, recently issued! They go far to demonstrate the utility of art from a scientific standpoint.

By the way, John V. Shoemaker, the brainy and brawny editor of the *Register and Bulletin*, has given us a most valuable work on dermatology, from the practical point of view of the family physician. Every laborer in the broad field of general medicine should possess himself with a copy of the book.

Dr. Shoemaker has long been considered one of the most valuable contributors in this particular field of labor—valuable in that he presented practical information, ready for immediate assimilation by the busy worker of the profession. A glance only at the book of Dr. Shoemaker impresses one that it is particularly adapted to the needs of the family physician and a close investigation gives confirmation of the fact.

In no department of medicine are the terms employed so technical as in dermatology, but Dr. Shoemaker in his book has wisely avoided the use of pedantic names, and substituted words and phrases more readily understood.

Hebra's classification, slightly modified, is that adopted by the author, and we have the diseases to which the skin is subject ranged under the following heads: 1. Disorders of Secretion and Excretion. 2. Hyperemias. 3. Hemorrhages. 4. Exudations. 5. Hypertrophies. 6. Atrophies. 7. Tumors. 8. Neuroses. 9. Parasites.

The book is most creditable to its talented author, and the publishers have not been lacking in the performance of their duty.

* * *

The president of the St. Louis Medical So-

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ciety, at a recent meeting, read a very timely paper urging more literary work upon the part of the members, and made many valuable suggestions in the direction of increased efficiency for the society. He advised the young members especially to form the habit of reporting cases.

* * *

Every now and then we hear some medical man excuse failure to make his proper contribution to the general fund on the ground that unless he can furnish something original or new, he prefers to furnish nothing. This is fallacious. Well recorded clinical facts are always valuable. He who waits until he can electrify the profession with something novel and startling will, as a general rule, wait until he becomes gray, and in the meantime he will have formed so lazy a habit of thought and action that even if he accidentally strikes upon something in his judgment worthy of reporting, he will lack the capacity requisite for the proper performance of the duty.

* * *

An exchange, the main purpose of which, apparently, is to serve as an organ to one of the supernumerary medical colleges of St. Louis, and which has, evidently no attachment to or for the St. Louis Medical Society, perpetrates the antique and moth-eaten journalistic gag of writing a letter to itself and then answering it. It is to be hoped that an early issue will either contain a presentment of the name of the gentleman who is in a quandary, or an editorial "acknowledgment of the corn."

* * *

A writer in the *Med. Rec.* inveighs against that section of the code of ethics which pronounces against the securement of a patent by the inventor of a surgical instrument. He suggests that the section referred to discourages inventive genius, and throws all the profits of instruments into the hands of the manufacturers. By the way, the medical writer can have his book patented (copyrighted) and profit by the same indefinitely. This looks like discrimination in favor of the book maker against the tool maker.

* * *

The following papers are promised for the meeting of the State Medical Society at Kansas City, April 17:

"Intestinal Perforation and Hemorrhage as Complications in Typhoid Fever," by Dr. L. I. Mathews, of Carthage.

"The Management of Typhoid Fever," by Dr. I. N. Love, of St. Louis.

"An Analysis of 100 Consecutive Amputations," by Dr. Pinckney French, of Mexico.

"The Personal Equation; a Suggestion Concerning Diagnosis by Auscultation," by Robert Barclay, of St. Louis.

"Nervous Pathology," by Dr. B. F. Wilson, of Salisbury.

"Paramyoclonus Multiplex," by Dr. Frank R. Fry, of St. Louis.

"Syphilis of the Lungs," by Dr. Wm. Porter, of St. Louis.

"Comparative Medicine; the Relation Between the Diseases of Domesticated Animals and Man," by Dr. Woodson Moss, of Columbia.

"Is Inflammation of the Synovial Membrane the Initial Lesion of Joint Disease?" by Dr. A. J. Steele, of St. Louis.

* * *

The outlook is most favorable for a grand meeting of the American Medical Association at Cincinnati from May 7, to 12.

I understand that the local committee of arrangements (the solid wheel horse Dr. W. W. Dawson chairman) is being enthusiastically aided by the citizens, the impression having gone out among them that, in addition to loving science, the doctors all enjoy having a jolly good time.

It is proposed that the entire medical profession of America—the lions and the lambs—come together and have a love feast. The substantial and loyal exponent of the American profession, Dr. Jno. J. Mulheron, in a recent number of the *Med. Age*, says:

"It is hoped that the coming meeting of the A. M. A., will prove that all the (jaw) bones of contention, and hatchets, and the other

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disagreeable weapons of attack and defence (sneers, inuendoes, etc.), which have been so conspicuous during the past three or four years, have been buried so deep under the success of the late International Medical Congress, as to be forever beyond the power of resurrection. Let us have peace. The sensation at an annual meeting of the Association would certainly possess the charm of novelty.

The times are auspicious for a grand reunion at Cincinnati next May, and if the proper growth of the spirit of "meet-me-half-way" shall be cultivated in the meantime, the meeting will be a memorable one. The warring factions have had a fair test of each other's strength, and have demonstrated that each is a foeman worthy of the other's steel. They have demonstrated, too, that neither is essential to the other's existence, but that, if need be, each can stand alone, without the other's support. This is well as far as it goes. It shows the great strength of a body which even when divided shows no weakness. But strong though it be, it certainly gains nothing by division, and now is the time for the elements to again cohere into the original mass. The sensible, broad-minded men of the profession will, under the circumstances, reunite, and letting the dead past bury its dead, will go to the next meeting with a fixed resolve to join forces for the common good. So mote it be."

So say we all!

* * *

That Prince of editors and jolly good fellows, Dr. F. L. Sim, of Memphis, Tennessee, has recently wiped out of existence his most excellent journal *The Miss. Val. Med. Mo.*, and from the chaos remaining has made to spring phoenix-like, a new tree upon an old trunk. He calls it now by the shorter, sweeter and more euphonious name of the Memphis *Med. Mo.* The change is a good one. Life is too short and space too valuable to justify long titles.

Journals may come and journals may go, but the journal of Sim will ever green grow, in usefulness and vigor and wax fat.

Close observers of affairs and passing events can but have noted the physical progress of woman as well as her mental evolution. Home and its duties are being deserted and office, counting room, store and factory, are becoming the rendezvous of the gentle sex, and "that noblest study of mankind" man, is "taking to the woods," and "tramping."

On this topic the *Med. Rec.*, has the following: "One of the most striking signs of the advancement and emancipation of woman may be noted by the student who philosophically observes the posters of Barnum's circus. The number and variety of wonderful feats performed do not increase, but they are gradually being done more and more by women. We see in the future a time when the only share of ignoble man in and about the arena will be feeding the elephants and driving the horses. It was but a short time ago that a lady lion-tamer nearly had her head bitten off, being the first women who has ever had a professional experience of this kind. Mr. Barnum announces 'the only lady knife-thrower,' to say nothing of lady snake-tamers, a lady who walks on the ceiling, a troupe of lady 'trapezists,' a lady wolf-tamer, a lady who is shot out of a canon, and a lady who 'warns, comforts, and commands' some twenty odd elephants."

Or possibly the preceding is proof that the lords of creation will have to accept their position as feeders of the domestic animals, while their "better halves" warn, comfort, and command the elephants, and tame the wolves and lions of the world at large.

* * *

A writer, in *Temple Bar*, thus addresses the "girl of the period."

"You will have to know Latin and logic and Greek, you will have to be able correctly to speak, of atoms and molecules, acids and bases, of the earth in aphelion, of the moon and its phases, of the three laws of Newton, of gases expanding, of how to preserve equilibrium when standing, of what is the green coloring matter in plants, of the structures of elephants, beetles and ants: You should also

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be able to fluently chatter, on the prevalent opinions of mind and of matter.

Never mind learning "to play" or "to sing," to be able to please is no longer the thing; don't trouble your head about baking and cooking, red faces and fingers isn't student-like looking; in all houshold duties, what'eer there's to do, let your brothers see to it, they've more time than you; at table, gulp down your food, dont try to talk, dont waste precious time by taking a walk, dont heed the broad hints about spoiling your looks, let health, hearty pleasure go, stick to your books, be sure a fixed hatred of mankind you show, "superior women dont marry" you know.

When years have gone by, if you find when too late, that your love for book-lore, and for mankind your hate have brought no repose, but a heartrending pain, and you wish you could live your life over again, whatever occurs dont show what you feel, let no one imagine the grief you conceal, but rather bequeath what you have to a college, and in dying proclaim,"theres nothing like knowledge."

All of which is respectfully submitted.

* * *

That we have in antipyrin a most excellent remedy is certainly true, but considering the fact that the demand is very great and the drug being patented and the manufacture limited to the laboratory of the discoverer "Knorr" or those working with him there can be no doubt that much that is inferior, is already on the market and the evidence for or against the clinical application of the remedy must be carefully weighed before being accepted. The reckless and indiscriminate use of the drug by the laity and the liberal counter dispensing by pharmacists is not devoid of danger. Already unlooked for results are being reported in the journals and a few cases of even fatal poisoning are recorded. As an illustration of the sublime abandon with which druggists sometimes administer remedies to persons of whose constitution they are ignorant I cite the case of a very intelligent patient of mine a victim of heart disease, who, being in a distant city called at a drug store to secure the filling of a prescription for the relief of headache. The druggist suggested antipyrin instead—gave him a dozen doses of ten grains each to be taken at intervals until relieved. Fortunately the better judgement of the patient came to his rescue and he resorted to his old reliable and oft tried remedy, and retained the new until he could consult with his physician. The antipyrin might not have been very far wrong as a remedy in the case but I propose to give it very guardedly in persons suffering with heart disease, at least until I know more about it. During the past eighteen months it has served me well as a reducer of temperature in typhoid and other fevers, a reliever of pain, neuralgic or rheumatic, and a tranquilizer of spasmodic conditions. However, in this, as in all other new remedies, we should make haste slowly. Antipyrin will take high rank in the fight against disease along with quinine, chloral, cocaine, etc., but let us guard against a craze.

* * *

There appeared in Lamphear's bright and racy journal, the *Kansas City Med. Index*, some months ago, a letter from St. Louis over the signature of *Index*, wherein occured a reference to the "Cheap John," character of some of the resident physicians of this city. These statements were copied liberally in other journals and commented upon, which justifies the observation, that in St. Louis the same as everywhere else there are lazy, lounging, tired, slovenly, self-depreciating doctors going around with a hungry hang-dog look, with hat in hand ready to work for nothing, or almost nothing, medical mendicants as it were, but the profession as a class is composed of earnest, studious, conscientious, self-respecting, progressive men, who gladly give their services to worthy objects of charity, but are well paid by an appreciative well-to-do clientelle. Here as elsewhere, the man who gives careful, faithful, skillful, good service, demands and receives *good* pay.

* * *

The foregoing recalls (a matter so trivial as almost to have been forgotten) an unkind

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and unjust allusion to the one responsible for the subject-matter in this column which appeared in an earlier letter in the journal above referred to signed by the same anonymous "Index." Which leads to the remark in language that's plain, that for ways that are dark and tricks that are vain the *Index* corresondent is peculiar to say the least. Peculiar in that he went out of his way in one letter to pass an unjust, unkind, and uncalled for criticism upon a gentleman,(mentioning him by name) and had not the courage nor the manliness to sign his name to the article, and in another letter reflects upon the local profession to which he claims to belong, giving evidence in both productions that he is not in harmony with his environment—a sort of Ishmællite as it were. Friend Lamphear you have a good journal; select a St. Louis correspondent who will present you with a correct *index* of St. Louis affairs and less of an *index* of himself, and who will not shirk nor dodge responsibility for his effusions.

* * *

We are in receipt of the following circular letter and present it to the readers of the REVIEW, hoping that they will make a note of it and govern themselves accordingly.

Dear Doctor:—The thirty-first annual meeting of the Medical Association of the State of Missouri, will be held at Music Hall, in Kansas City, Mo., April 17, 18 and 19, 1888. You are invited and requested to be present. Your attention is also directed to the following resolutions, which were adopted at the last meeting at Macon City, Mo.:

Resolved, That the authors of papers to be read before this Association, shall send the title of such papers to the chairman of the committe on Scientific Communications, one month before the annual convention; and that it shall be the duty of said chairman to send a list of such authors to each member of the Association.

Resolved, That after the reading of formally prepared papers, the remainder of the last day be devoted to the presentation of pathological specimens and reports of cases.

At the twenty-seventh annual meeting the following amendments, relating to membership, were adopted:

1. Honorary members shall consist of those who have served as president of the Association, with such distinguished members of the profession, not residents of the state, who shall be elected by a three-fourths vote at a regular meeting of the Association.

2. All members of good standing of regular medical societies of this state, who shall be regularly accredited by the proper officers of said societies.

3. The annual dues to be paid by all members in attendance (other than honorary) shall be three dollars and each member shall be entitled to a copy of the transactions.

4. Any physician in the state, not a member, who shall remit one dollar to the treasurer, on or before the annual meeting, shall be entitled to a copy of the transactions.

In conformity with the above resolutions and amendments, you will please bring with you such cases and pathological specimens as you may deem of interest, and a certificate of membership in your local district society; also send immediately to Dr. E. W. Schauffler, Eighth and Main St., Kansas City, Mo., your name and the title of your paper.

The change in the time of the meeting has been made by the President and Recording Secretary, after a consultation with the committee of arrangements, in order that, there may be no conflict with the meeting of the American Medical Association.

The railroad and hotel rates will be published in a circular, which will be issued about April 1, a copy of which you wil reeeive. Yours truly.

John H. Duncan, E. R. Lewis, J. D. Grffith, D. R. Porter, C. D. McDonald, L. A. Berger, C. W. Adams; Committee of Arrangements.

Apropos to the above many additional papers have been promised. In the next issue will be given the complete programme if possible.

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CORRESPONDENCE.

NEW YORK LETTER.

NEW YORK, March 15, '88.

EDITOR REVIEW:—"Of making books there is no end," wrote the wise man of old, and almost the same thing might be said here in New York, of opening new laboratories. The last institution to profit by private beneficence is the Long Island College in our sister city Brooklyn. The donor is Dr. Hoagland, and the new building is about ready to be formally opened. The internal arrangement is the best that money properly expended can furnish. The various buildings of sister institutions devoted to similar work have been carefully inspected and wherever experience has suggested a new feature, the latter has been carefully studied and incorporated into Dr. Hoagland's. Special attention will be paid to medical photography which has become such a valuable auxiliary in certain departments of our science. Next year's class of students will reap a rich harvest of facilities in the line of laboratory work. To crown all, the building will be placed in charge of Dr. Geo. M. Sternberg whose bacteriological investigations have so admirably fitted him for the responsible position of laboratory director.

The Long Island College though pursuing its way quietly, is yet doing most admirable work. Its has its own hospital with its ambulance service, and clinical and bed-side teaching are carried on with a thoroughness and a system which we rarely see exhibited in this country.

Death has recently removed from our midst three physicians, all of whom were actively engaged in professional work. The oldest and most prominent was Dr. R. S. Drake, of the Bellevue, and Charity Hospital visiting staffs, and clinical professor of medicine in the University Medical College. He had been an active worker in the County Medical Society, and was for a time an associate of Dr. A. L. Loomis.

Dr. Thomas D. Swift one of the visiting physicians of the Demilt Dispensary has recently died, also Dr. Willis W. French of the Bellevue Out-Patient Department.

Yet another man must be placed on the death roll; that of a man whose relations with the medical profession were unique—Henry Bergh. This gentleman was instrumental in doing a great amount of good here in New York, and of causing a still greater amount of exasperation. His hobby was cruelty to animals, and he founded a society which has by its legislative authority done much to alleviate the suffering of the brute creation. Unfortunately, however, he was not always as considerate as he might have been of the feelings of his fellow creatures. He regarded it as his province to care for the afflicted horses and dogs: afflicted man might care for himself. He was bitterly opposed to vivisection, and for successive years tried to have a bill passed by the state legislature to forbid it. He found his Waterloo here, however, for the professors of physiology in the various medical colleges were always on the alert to head him off and they were always successful. He finally ceased to denounce them, and the annual sacrifice of mongrel pups on the altar of science has continued. Outside of this particular province, Mr. Bergh's works and endeavors were in every way to be commended. He gave largely of his private means to carry on the Society's work and his sad visage which earned for him the soubriquet of the "Knight of the Rueful Countenance" will be greatly missed on our streets.

Our literary physician, Dr. W. A. Hammond has announced that in two years he is to leave us and take up his abode in the city of Washington. He is still heard from in the various societies; most recently at the Medico-Legal where he declared against the introduction of electricity as a means of inflicting the death penalty. He prefered the old method "No death was so free from suffering" he said "as hanging" and he recommended that simple method of the American lynchers of placing a slip-knot around the subject's neck and hoisting him off the ground by a pulley, to be strangled by his own weight. He men-

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tioned instances to prove that the strongest electric current would not always kill. Dr. N. E. Brill held that the guillotine was the most comfortable engine of death. In the meanwhile, the commission appointed by the governor has declared in favor of electricity.

The Alumni Association of the Bellevue College has recently erected in the Carnegie laboratory a bronze tablet to the menory of the late Dr. Austin Flint. The eulogy was delivered by Dr. Leroy M. Yale who spoke most feelingly of the virtues and ability of his venerated friend and instructor. Dr. Isaac E. Taylor on behalf of the faculty accepted the tablet and paid a glowing tribute to Dr. Flint. "In our hearts" he said "there is erected a tablet more enduring than the one that has just been unveiled."

The governors of the New York Hospital have recently filled the vacancies existing on the visiting staff of that institution. Drs. A. B. Ball and E. L. Partirdge became physician and Dr. L. M. Stimson, surgeon.

No letter from New York could be complete without a reference to the "blizzard" which is likely to be the principal topic of conversation for some weeks to come. We were not only isolated from the outside world, but it was impossible to make headway through the city. Ambulances could not run and doctors could not visit their patients. Many cases of death have been reported resulting directly from exposure. The most serious aspect was the scarcity of milk which inside of forty-eight hours rose to the price of fiity cents a quart, thus entailing great suffering upon the poorer classes. No funernals could take place and we were altogether in a most doleful condition. However sunshine came at last and thawed us out. We have been disposed to make eight of western storms, but our recent experience will lead us to speak of them hereafter in terms of the greatest respect.

J. E. N.

Jonathan Hutchinson makes the suggestion that the long-continued administration of arsenic in large doses may produce a form of cancer closely allied to epithelioma, but presenting peculiar characteristics.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, March 3, 1888, the president, Young H. Bond, M. D., in the chair. J. B. Prichard, Secretary.

Dr. A. J. Steele read a paper on "Excision of the Knee Joint for anchylosis."

Dr. Laidley.—The history of these operations dates back some years. I think Dr. Hodgen was the first to popularize the operation in this city. Some eight years ago I presented to this society, a specimen similar to Dr. Steele's. The most prominent point in the discussion that followed was as to the advisability of the operation. I produced at that time a table showing the results in a number of cases of resections as compared with amputations. Then the question was raised: "Would not the limb be more useful if an amputation were performed, than if the joint were resected. In the case that I speak of, seven or eight years have elapsed since the operation. I saw the young man last fall. The history of the case was that there had been an injury to the knee from a buzz saw, which produced destruction of the joint; fever had supervened and he had suffered a great deal, so that when he came to me he had acquired the opium habit. False union had taken place. He came to me to have amputation performed. I suggested excision of the knee, which was done. I think that for this operation favorable cases only, should be selected.

Dr. Steele is to be congratulated on the result in his case. I am sorry to see the amount of shortening which is present as there is otherwise such a beautiful result. Of course that could not be helped. In the case I operated upon, there was about an inch and a half of shortening, which was easily overcome by a shoe made for the purpose, having a thicker heel and sole than the other shoe. I used a splint similar to the one employed by Dr. Steele—it being nothing more than a Hodgen splint modified so as to give us a fenestrum immediately over the joint so that I could dress

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the wound easily. I remember that although the ends of the bone were simply coaptated, and no pains were taken to hold them together, there was no trouble in keeping them in place as the muscular contraction held them in position, on about the same principle, that we expect a fractured bone to be held together. We employed antisepsis, but as the bichlorides were not then being popularized, we used carbolated solutions; we used about a five per cent solution of carbolized water, and we had no difficulty in keeping the parts in good condition, although after a time we had a very severe cellular inflammation resulting in suppuration, and we were obliged to make an opening through the popliteal space, about two inches above the wound, in order to get drainage. The doctor makes a good suggestion, when he states that it would be well to make drainage in that direction. It was necessary in the case I speak of.

Dr. S. C. Graves.—I think it has been pretty well demonstrated that all operations on the knee joint are safer with the use of antiseptics than without them, and that resection is indicated whenever the functions of the joint are impaired so as to make anchylosis desirable. I congratulate Dr. Steele on the result in his case. I can not say that I do, on his method. He claims not to have carried out the technique of the antiseptic operation. He did not use the douche because he thought its use injurious, although he gave no reason for this opinion. I think if there has been any one distinct advancement in surgery—any one fact brought before the profession, it is that antisepsis has done a great deal for operations on the knee joint. It is more necessary that we use a douche in operating on the knee joint than in operations on other parts of the body, because we have more foreign matter there, which is likely to cause sepsis. I prefer the wire splint to the plaster. It can be moulded and modified to suit the operator.

I think another point which should be considered in performing this operation, whether we make the "U" or the lateral incision is the bringing of the parts well together, injuring them of course as little as possible if we want to maintain the function of the joint; and even if this is not the case, if we make the anterior incision with the expectation of getting a perfect anchylosis, I think it is well to bring the ligaments together and suture them. Although we may expect a granulating wound we can avoid having very much suppuration.

Dr. Lurz.—I remember Dr. Laidley's good result very well because sometime afterwards I had a case in which I attempted to perform resection of the knee joint, but the disease afterward involved the bone below the site of excision, necessitating an amputation subsequently. The resected joint in this case illustrated a point which Dr. Steele has put quite prominently, and that is, the tendency on the part of the hamstring muscles to produce backward dislocation of the tibia; to pull the upper end of the tibia backward and thereby produce a kind of flexion. This specimen is flexed at quite an angle as the result, I imagine, of not supporting the lower end of the limb properly as the doctor has suggested it ought to have been. In my case I used silver wire.

The question of the excision of the joints is one in which surgeons are very much interested just now; not so much the excision for the purpose of producing anchylosis, but with a view of producing any kind of joint. Now I believe that Dr. Steele would have fared better in the after-treatment of his case had he used thorough antisepsis. There is no question but what the mechanical injury done by the operation about the knee joint is not such as to produce suppuration or ought not to be, unless a portion of the bone which is involved in the disease is not removed; but if antisepsis is thoroughly used there should be no suppuration, as of course everyone knows. The use of the irrigator in connection with bone surgery is perhaps not so favorably looked upon by many surgeons, for the reason that they suppose that the cancellated tissue is washed out by the irrigating fluid, and that these open spaces are possibly the nests in which afterward the micro-organisms, or perhaps only the blood which is necessarily ef-

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fused from the cancellated tissue is lodged, and afterward undergoes putrefaction. For my part I do not believe that this theory is well grounded; on the contrary I should imagine that a case of excision of the knee joint would get along more smoothly in its subsequent history, so far as the healing process is concerned, if the irrigator was thoroughly used. I think drainage should be made above the condyles, or by the side of the condyles, perhaps a little posteriorly; because there you would expect to have the fluid escape both from the wound in the bone, and the wound in the soft parts, very much after the fashion in which we establish drainage when wiring the patella for a fracture; the drainage is made on the outside and above the joint, because that is the most dependent part of the joint as you slightly elevate the limb after the operation. In other words, I believe that when drainage is made, and of course it ought always to be provided for, that it should be made at the most dependent portion.

Dr. Love.—I remember the discussion which Dr. Laidley referred to; and taking into consideration the risk and dangers of the operation, even with antiseptic precautions, and also the fact that a stiff, obstructing member, attached to the trunk in the shape of a leg, is apt to be rather a disadvantage than an advantage, the question seriously presents itself to me whether amputation should not be preferred; at least the fact should be laid before the patient and he be allowed to decide.

Dr. Fairbrother.—I do not think there can be any question in a case of this kind between an amputation and the saving of the limb; of the comparative value of a real and a wooden leg. The difference is all on the side of the real leg. However perfect the anchylosis may be, and however little difference there may be in the action of the natural and artificial legs, the natural one is always preferable. I had a case similar to this, eight or ten years ago, and after consultation with a surgeon in this city, we decided to cut the posterior tendons, break up the adhesion, straighten the limb and procure anchylosis with the understanding that if this did not succeed, we were to perform resection. We had a very good result. That was about nine years ago, and the patient who is a lady, has a very good limb. It is an inch and a half, or two inches, shorter than the other, but that is overcome by a proper shoe, and she is an excellent dancer. I would not entertain the question of amputation; I would not amputate a stiff finger unless it projected backwards. The question is which is the preferable operation, to perform resection, or to break up the adhesions, cut the tendons and place the limb in a splint similar to this, endeavoring to get a straight anchylosis. Now there is no shortening made by this latter operation.

The shortening in the case reported existed before the operation was performed, and the only effect of the operation was the straightening of the limb. The difficulty here was an acute synovitis and the effects of that had long since passed away—with the exception of the shortening and stiffening, and both of these have been happily remedied.

Dr. Steele.—Dr. Laidley regrets there is so much shortening in this case. Of course we all do; we regret that there is any at all; but, as has just been suggested, this amount of shortening is not due solely to the operation. When the girl was nine years old there was an injury to the joint followed by inflammation which becoming aggravated, spread to the upper epiphysis of the tibia and involved the epiphyseal junction, which being cartilage was converted into bone by the inflammation; and from the time of the ossification of the cartilage the tibia ceased to grow at that point. The bone in the other limb continued its growth and thus outran its neighbor, so that all this shortening is not due to the operation.

Dr. Laidley.—I would state that I said I was sorry there was so much shortening inasmuch as the operation had been so well performed; of course it could not be helped. I did not mean to criticize the operation or to intimate that the shortening was due to it.

Dr. Steele—At any rate it is interesting to speculate why there should be so much

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shortening. Some say it is due to the non-use of the limb. That would not wholly account for it. The limb was atrophied in all its dimensions—lengthwise and in its circumference—from non-use; but additionally ossification of the epiphyseal cartilage arrested the growth of the tibia at that point. The limb was really lengthened by the operation, for in computing the shortening, we must not compare it with the other limb, but take the distance between the foot and the ground now, and the distance before the operation, and we will find the distance is now diminished by a number of inches.

Dr. Graves spoke of antisepsis, and both he and Dr. Lutz think the case would have fared much better had more thorough antisepsis been observed. I heard Mr. Lister when he was in this country at the Centennial, and saw him five years ago at King's College Hospital, and I observed that although he had the spray operating, much of the time he stood between it and the patient and paid but little regard to it. Then it was placed further and further away until today we never use it. I came to the conclusion at that time, and so wrote to the *Courier of Medicine*, that I believed Listerism, antisepticism, meant strict cleanliness. What more does Mr. Tait's experience show than that? He is very expert indeed, and allows no one to touch the wound but himself, but he does not adopt the thorough antiseptic treatment of to-day. I am not inimical to antiseptics, however, but do not always find it convenient, perhaps do not consider it absolutely necessary to adopt all the new measures of its most extreme partisan.

Dr. Lutz.—If you will permit me I will state that Tait operates aseptically.

Dr. Steele.—That is to say with thorough cleanliness. I believe that Lister has done more good than any other living surgeon. The changes which have been effected in the French and German Hospitals from what they were 25 years ago, are due to his teachings. Pest houses then, with erysipelas and pyemia, and great mortality, now those complications unknown and the death rate after operations reduced 50 per cent. There was never in my case sufficient pus to soil the dressings. I would carry a cotton holder down into the drainage tube, and it would come out moist, and that is about all I ever did remove. She had little or no fever, and I do not know that we would have fared better by the most minute antiseptic method.

There is no question as to the superiority of one's own limb over any that may be manufactured by a mechanic, and I know of no authorities who agree with Dr. Love. Excision is to be preferred to amputation, unless the latter is safer, but excision as performed to day is safer than it was formerly, because of improved methods of treating wounds.

Dr. D. V. Dean.—Does the doctor believe that amputation is less dangerous as a rule than excision.

Dr. Steele.—I would not perform excision in a child under six years of age, nor in an adult over thirty with a chronically diseased joint and broken down constitution, as I would expect the patient to die.

Dr. Love.—Then there are times when amputation is preferable?

Dr Steele.—Certainly; but in this case we had everything in our favor; we had a patient aged 18 years, with no chronic bone disease existing as in many of these joint troubles; then the physical condition of the patient was good. In the very young and very old amputation is usually preferable.

Dr. Broome.—Were there articulations between the bones in the joint?

Dr. Steele.—The patella was adherent for half an inch to the external condyle of the femur, true anchylosis.

Dr. Broome.—Was it suggested to your mind to cut those tendons before undertaking the operation of resection and attempting to break up this union between the femur and patella?

Dr. Steele.—Do you refer to the hamstring tendons?

Dr. Broome.—All the tendons that were tense.

Dr. Steele.—Those are the only ones we would expect to find tense, but even with

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them divided, it would have been impossible to break up the adhesions. This condition had existed for nine years and during that time the posterior ligament had shortened and condyles of the femur had grown downward so that it would have been utterly impossible to bring the tibia down upon the articulating condyles of the femur; and suppose it had been possible, it would not have made a joint.

Dr. Broome.—You did not want a joint.

Dr. Steele.—No,but I could have no assurance that I would get anchylosis of those cartilages. Excision has been performed by Ashhurst and other surgeons in cases similar to my own.

Dr. Love.—I simply desire to say in explanation that I did not suggest that amputation would always be preferable, but that in many cases it would. The doctor says he would not perform excision of the knee in persons under six or over thirty years of age, and in my opinion this includes the majority of cases, so that my objection seems to have been well taken.

Dr. Love read a paper on "The Practical Application of Glycerine." (Page 318.)

Dr. Robert Barclay.—I am glad to hear the doctor's testimony added to that which already exists as to the efficiency of glycerine as an aperient. He speaks of its use by rectal injection, which to my mind is a very disagreeable method of administering it, except in the case of helpless patients, where there are large fecal accumulations, or in very young infants. The aperient properties of glycerine have been known for years; it has been in use as a adjuvant to other aperients. It has been my custom to prescribe castor oil and glycerine, in equal parts—an ounce of each—with a few drops of oil of wintergreen added to give a pleasant flavor. This often has a good effect where castor oil alone will not answer.

Dr. Love.—Do you give it by the mouth?

Dr. Barclay.—By the mouth and not by the rectum. It is just as well to give it in an agreeable way and by the natural passage.

Dr. Dean.—I had occasion to treat some cases of oxyuris vermicularis, and I used glycerine with good effect. I related this to Dr. Hermann of this city, and sometime afterward he brought me two children who were troubled with oxyuris vermicularis,they were little girls, and the worms had gotten into the vagina, which is frequently the case. And he used glycerine in these cases with good effect. I advised him to be careful in the use of glycerine, however, but he got an excellent result. I have often seen the good result of the use of glycerine injected into the rectum of children for this trouble. The worms shrink and shrivel up, and it is only a few minutes until the bowels are completely emptied of the worms. The astonishing feature to me is that the beneficial effect of glycerine in the condition mentioned by Dr. Love has not been discovered before. I have for many years used glycerine injections for these worms that I have mentioned, but it is only within a few days that I saw this use of glycerine in constipation suggested.

Dr. Frank Glasgow.—Some years ago I read an account of a series of experiments which had been instituted by some Frenchman, who made various applications of medicine to the surface of the body for the purpose of determining whether they would be absorbed or not. He found that remedies in glycerine solution were not taken up into the blood. This is probably because there is an exosmosis going on, of the watery particles of the blood, to the glycerine. It occurred to me that this was the same process which caused the result, which Dr. Love mentions; and if so it seems to me it would render inoperative the use of glycerine per rectum as a vehicle for the conveyance of systemic remedies.

Dr. Love.—The suggestion which Dr. Glasgow has made, is a very good one and it is probable that the use of glycerine for the purpose suggested by Dr. Meyer would be contra-indicated. I want to say that Dr. Barclay failed to grasp the main idea in the paper; that is that the glycerine by injection on account of its affinity for water produces an irritation of the sentient nerves followed

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by a peristalsis and this secures a prompt action, the impulse being given from below upward securing a prompt effect. The administration of glycerine by the mouth, has no bearing on the subject whatever.

SELECTIONS.

THE BEARING OF ALBUMINURIA ON LIFE ASSURANCE.

BY F. DE HAVILLAND HALL, M. D., F. R. C. P.

Since Dr. Grainger Steward read a paper before the Royal Society of Edinburgh, in June last, on the discharge of albumen from the kidneys of healthy people, the attention of the profession has been directed to this important subject. I would suggest that before the word "healthy" be inserted "apparently," so that the sentence would run: "the discharge of albumen from the kidneys of apparently healthy persons." It is, I think, begging the question to call persons healthy who are passing albumen; and I gather that this is also the view of Dr. Stewart, as in the report of the meeting in the journal for June 11, from which I get my information, he is said to have arrived at the following conclusion, amongst others: "That there is no sufficient proof that albumen is normally discharged from the human kidneys."

The point, however, to which I wish to direct attention is the bearing of albuminuria on life assurance. The question at once arises, are medical officers to life assurance companies justified in rejecting or referring all applicants found to be passing albumen? I am distinctly of opinion that at the present time there is not sufficient evidence before the profession to allow of any answer except an affirmative being given to this question. If Dr. Saundby could give us the result of his experience of the last ten years a little more definitely, it would make a good commencement.

The only attempt with which I am acquainted to follow up in a systematic manner the after-history of cases of albuminuria is that made by the medical staff of the United States Life Insurance Company in their annual reports to the board of directors. Struck by the fact that nearly 10 per cent. of all the deaths of policy holders in their company occurred from Bright's disease, an examination of the urine was required in the case of each applicant. In the first year, twenty-four cases of albuminuria were detected. "In each the heart and lungs were found to be normal, and nothing could be learned from the past history to lead to the suspicion that albuminuria existed; furthermore, the physical appearance in every case (with, perhaps, two exceptions) indicated a healthy condition. Each one considered himself in perfect health, and really appeared as if he were. They were all excluded solely on account of albuminuria, and formed 11 per cent. of those presenting themselves to me for examination. In nearly every case two or more specimens taken at different times were examined, and albumen found in each." A similar procedure was adopted in 1879, with the result that nineteen cases, or 12 per cent., and in 1880 twenty-six cases, or 10 per cent., were found to be suffering from albuminuria.

In his concluding report Dr. Munn sums up his experience of the 69 cases as follows: "In view of the fact that four of the number have died, and that the general appearance of the majority of those who have been under observation for more than one year is gradually deteriorating, I am lead to believe that albuminuria should be regarded as of grave significance. In some cases, however, it may be of slight importance, and further research may possibly enable us to discriminate between them."

The reports are accompanied by tables recording the occupation, age, weight, height, frequency of pulse, amount of albumen, presence or absence of casts in each case.

In favor of the line of action that I am recommending, namely, that persons suffering from albuminuria should not be accepted, is the fact that the vast majority of applicants for assurance are examined some hours after breakfast, so that those cases in which albumen is only found immediately after that

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meal would not be excluded from the benefit of life assurance.

In analysing Dr. Stewart's tables contained in your issue of October 15—and I only take into consideration tables 2, 3, and 4, the other tables, embracing children and scarlet fever patients, having no practical bearing on the assurance aspect of the question—I find that, of cases of Bright's disease (including those probably due to Bright's disease), in forty-nine instances, the albumen was detected by nitric acid, and in five instances by picric acid only; grouping all the other conditions giving rise to albuminuria together, in forty-seven instances albumen was detected by nitric acid, and in twenty-eight instances by picric acid only; therefore if picric acid had been dispensed with five cases of Bright's disease would have been overlooked; but on the other hand, twenty-eight instances where there was no evidence of organic disease of the kidneys would not have been included in the category of persons unsuitable for assurance purposes on account of renal disease. Using nitric acid only, forty-nine cases were referred to Bright's disease and forty-seven to other causes. The outcome of this analysis is that in more than half the cases in which albumen was detected by cold nitric acid, Bright's disease was the cause. I am therefore of opinion, as I have already stated, that medical officers to assurance companies should not recommend cases of albuminuria for acceptance where the albumen has been detected at mid-day or in the afternoon, on boiling the urine, or by means of cold nitric acid. From an assurance point of view I think it would perhaps be better not to employ picric acid, as otherwise fairly good lives might be excluded.

Before concluding, I must express my admiration of the able manner in which Dr. John Munn, one of the medical officers to the United States Life Insurance Company, has drawn up his tables, and of the very careful directions he gives for examining the urine.—*Brit. Med. Jour.*

TRACHEOTOMY TUBE WORN FOUR YEARS AND A HALF.

Dr. Talfourd Jones, reports a case (*Brit. Med. Jour.*) in which he performed tracheotomy, on July 10, 1883, for the relief of dyspnea, due to laryngeal obstruction. The patient is alive and well, but is still wearing the tracheotomy tube. The patient was about fifty years of age. She first had trouble with her throat about three months before the operation was performed.

A diagnosis as to the nature of the disease in the larynx could not be made. On the fifth night after the operation it was found necessary to give the patient rest and sleep. A draught containing twelve grains of chloral hydrate and one-twelfth of a grain of acetate of morphia was given. This was repeated nearly every night till the middle of the following September.

On the eighth day following the operation, there seemed to be almost complete stenosis of the larynx. An unsuccessful attempt was made to pass a No. 5 soft and flexible bougie through the hole in the trachea upward through the larynx. At this time the patient could not for a moment bear the closure of the opening in the trachea.

Iodide of potasium, in fifteen grain doses three times daily, was given for several weeks without any apparent benefit.

The patient's soon reported to Dr. Jones, as follows, in a letter dated February 18, of the present year.

"My mother can converse quite freely in a kind of whisper. I can easily understand her even when she stands at one end of the room and I at the other; in fact, I can easily make out what she says when she is downstairs and I am upstairs, or *vice versa*.

She goes out to market when the weather is favorable, and she can, with scarcely any difficulty transact her business with the farmers' wives. Still she wears the same silver tubes you gave her before she went to St. George's Hospital. The outer tube she now leaves in without changing for a couple of days, but the inner one she cleases two or

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three times a day on the average. She cannot breath at all through the larynx if the opening in the trachea is closed with the finger. She is now in her usual health."

It should be mentioned that the patient's breath was not fetid at any time, and if there was a perichondritis, there was no evidence of caries or necrosis of the cartilages, and no papillomatous or other solid particles were observed in the expectoration.

Resection of Left Lobe of Liver.—There is hardly an organ in the body that has escaped the surgeon's knife. The liver has now been attacked, for Dr. Langenbuch records a case in which he successfully resected the greater part of the left lobe, which had been extensively deformed by tight lacing, and had caused great inconvenience and trouble to the patient. The woman, about thirty years of age, was, in November, 1886, under treatment for erysipelas at the Lazarus Hospital, and when about to be discharged convalescent, she begged that she might be relieved of a painful abdominal tumor that rendered life unbearable, and caused pain both on standing and on lying down. On examination a tumor of the size of the fist was detected in the epigastrium, dense, elastic, not fluctuating, moving with respiration, and its dulness continuous with that of the liver. The diagnosis lay between hydatid tumor and deformity from tight lacing, although the latter condition usually involves the right lobe. An exploratory incision proved that the case was of this kind, but involving the left lobe, and probably for that reason producing the painful symptoms. For the large and indurated mass of liver substance in this situation overlies sensitive parts and organs, which it would compress against the convexity of the spine whenever the dorsal decubitus was assumed. Dr. Langenbuch decided that it would be advisable to remove the source of so much distress, especially as the portion of the lobe forming the tumor was practically cut off from the rest of the organ by a broad but ligamentous pedicle, and therefore it was functionally of no service. Accordingly, the pedicle was transfixed by ligatures, and the lobe excised. The same evening symptoms of severe internal hemorrhage appeared, and, on reopening the wound, the abdominal cavity was found to be filled with blood; this was sponged out, the bleeding vessels secured, and no further trouble arose from that source. The wound healed, but recovery was somewhat retarded by the development of ascites, which necessitated tapping on two occasions. It could not be determined how far the ascites was due to the cardiac debility and hydremia resulting from the previous prolonged attack of erysipelas and the profuse hemorrhage, or how far it might have depended on the diminution of the hepatic circuit. There was edema elsewhere, so the former hypothesis had some support. At any rate it was not permanent, and the patient left in February quite well. The portion of liver removed weighed about twelve ounces, and Dr. Langenbuch says that the case shows the feasibility of removing the lobe of a tight-laced liver when this gives rise to serious discomfort. He explains the involvement of the left lobe in his case to the following circumstances. Up to the date of her marriage eight years ago the patient had worn a corset, which she had discarded on becoming pregnant, and had not reassumed. She believes that the liver, displaced downward and forward by the corset, now became subjected to pressure from the abdominal bandage which the patient has substituted for the corset; so that, as a matter of fact, the precise deformity which caused the disorder resulted not from tight lacing, but from its being omitted. This paradox would, we fear, add to the melancholy conclusion that once the evil habit is adopted it must be kept up if serious consequences are to be avoided.—*Lancet.*

A wooden case, containing a complete outfit of surgical instruments has recently been discovered at Pompeii. Many of the implements are said to bear a very close resemblance to those used at the present day.—*Med. News.*

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REPORT ON PROGRESS.

GENITO-URINARY DISEASES AND SYPHILIS.

BY BRANSFORD LEWIS, M. D.

I. URINE FEVER AND TOXIC URINE.—THE FORMATION OF STRICTURE TISSUE IN REFERENCE ESPECIALLY TO THE TREATMENT OF URETHRAL STRICTURE.

II. THE DANGER OF DELAY IN PROSTATIC TROUBLES.

III. SPECIFICITY OF GONORRHEA.

IV. CLOSURE OF THE VESICAL WOUND AFTER SUPRA-PUBIC CYSTOTOMY.

V. INDICATIONS FOR INTERNAL URETHROTOMY.

URINE FEVER AND TOXIC URINE.—THE FORMATION OF STRICTURE TISSUE IN REFERENCE ESPECIALLY TO THE TREATMENT OF URETHRAL STRICTURE.

In his first Lettsomian lecture—series of 1888—Reginald Harrison, F. R. C. S., gives some original, and if true, highly instructive ideas concerning the above subject.

From the results of his search for an explanation of the oft recurring sequences of internal urethrotomy for simple stricture, rigor, fevers of varying degrees of severity, and sometimes followed by suppression of urine, convulsions and speedy death, he has concluded that the train of phenomena is due to the absorption, under certain conditions, of urine, by a portion of the urinary tract whose surface has been denuded of its epithelial lining. In support of this conclusion, he first adduces the history of a case of traumatism of the urethra which had been followed by retention for thirty hours, with none of the symptoms alluded to until by catheterization some of the urine was allowed to come in contact with the wound, after which chill, fever, etc., and death occurred. Next, whenever internal urethrotomy was performed by him, the addition of median cystotomy, with direct and free drainage of the bladder by means of a tube, has prevented the sequelæ spoken of, and the results, so far as permanency of relief is concerned, have been more satisfactory than by any other method of treatment. Urine fever (which term the author prefers to the commonly used expression, urethral fever) only occurred where drainage was imperfect. Again, the lecturer has never known rigors or fever to follow supra-pubic aspiration of the bladder in cases of retention, notwithstanding the fact that prolonged and bloody attempts at catheterization had been made; whereas, in other cases with stricture, the simple introduction of a bougie has been followed by death, after the series of phenomena mentioned. This he explains by the assertion that in the latter case, the epithelial lining has been scraped off at one or more points, and that this has permitted urine leakage and absorption to take place.

By a similar process of reasoning, he explains the original production of a stricture, viz., As a consequence of specific urethritis, some chronic form of gonorrhea occurs, such as chronic granular urethritis, in which at one or more spots in the urethra, the epithelium has become so damaged that it ceases to render the canal urine-tight. A slow process of escape of some of the constituents of the urine into the tissues then takes place. As a consequence of this, and to prevent encroachment on the unnatural ground, inflammatory

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exudation is excited, and barriers of lymph, which ultimately become organized, are thrown out opposite these places. The process is so slow, that time is allowed for the deposit of this splint-like formation, and we therefore do not see the acute forms of inflammation, such as those occurring when extravasation has taken place.

But even with the latter condition, inflammation, gangrene, etc., do not necessarily occur. A case cited for illustration is that of extravasation attendant on a tight stricture, occurring in a person suffering from Bright's disease. Though the urinary infiltration had existed for twenty-four hours, there were no signs of acute inflammatory action or commencing gangrene. In seeking the cause of this, an examination of the urine disclosed the fact that there was almost complete absence of urea. This, then, solved the mystery, there being no urea to decompose, there was no source for the production of ammonia by which the destruction of tissues in connection with extravasated urine is effected.

Further, it was found that in the operative treatment of stricture, even when perfect drainage of urine could not be obtained, this tendency of the urine to set up mischief could be materially modified by local and general measures, such as the antiseptic treatment of the canal, and the administration of drugs, which, by their elimination through the urine, prevented its undergoing changes, and yielding products which were calculated by their absorption to produce this special kind of fever. For this purpose, quinine and boric acid were found to be especially serviceable.

The practical use of the above knowledge enables one, the author states, to prevent the formation of stricture and its disastrous consequences. If, in the one case, the cicatricial material is due to urine leakage occurring in the process of a chronic inflammatory affection, and in another instance it is brought about by the constant contact of the excretion with an internal wound, as in accidental rupture of the urethra, then the importance of irrigation as a part of the treatment in the first, and the free urine drainage in the second instance is interesting. Perineal section and drainage, whether extravasation be present or not, is the only rational course to be followed in the latter class of injuries. Such a wound heals with a scar which shows but little tendency to subsequent contraction; whereas the cicatrix produced under the harrassing presence the urine retarded in its egress, is followed by effects but too well known. And what applies to the healing of wounds inflicted accidently upon the urethra internally, applies equally to others similarly inflicted on the canal, for surgical purposes.

The Danger of Delay in Prostatic Troubles.

In a paper read before the Alabama Surgical and Gynecological Association by Dr. R. D. Webb, the author calls attention to the disastrous effects of too long delayed attention to prostatic hypertrophy, as found in later life. He believes that the evil to be feared is the secondary implication of the ureters and kidneys in the inflammatory process, producing, finally, as a result of the nephritis, suppression of urine and uremic poisoning, or from pyo-nephritis, a combination of uremic and pyemic sepsis. The cause most frequently met with for this delay is that of the natural disposition of men to shrink from speaking of derangements of their generative organs. Another factor is the insidiousness of the approach of the disease, which shows itself for the first year or two only by the prolongation of time in emptying the bladder, and later, by some difficulty in voiding the urine after exposure to cold or damp, which is readily overcome by means of a warm foot-bath or other simple remedy, serving to further soothe the patient into treacherous repose. Ignorance on the part of the patient and its equivalent on the part of the physician—failure to recognize the importance or origin of the symptoms—both share in causing the delay.

Three cases are cited, which show the futility of attempting means of relief at the

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late stage at which he was called to see the patients, all of whom died from the effects of the kidney lesion. Earlier treatment would probably have prolonged their lives ten or fifteen years.

Dr. Webb directs that when called upon to relieve a bladder that has been chronically distended with urine, a part only—about two-thirds—should at first be withdrawn, followed immediately by refilling the bladder to three-fours of its capacity with warm antiseptic solution. An hour later, one half of this should be drawn off, refilling again with the solution to one-half of its capacity, and then in another hour, the remainder of the fluid may be drawn off, after which the organ is washed well with the solution, finally leaving an ounce or two of it in the bladder, to prevent putrefactive changes. This procedure prevents the shock so likely to follow sudden and complete withdrawal of the bladder contents.

The author advocates catheterization in the early stages, but mentions as possible candidates for popular favor the method of Robert Newman who uses electrolysis; (a later method of treatment used by Newman for hypertrophied prostate, that of electric flashes in situ, producing cauterization without cicatrization. He claims by this means to reduce the hypertrophy and effect a permanent cure without pain or discomfort to the patient, and without interference with his daily avocation); and that of an Italian physician who perforates the middle lobe with a metallic catheter, attached to an electric cautery; and the punching operation of Mercier. He has found these remedies to be of assistance: quinine and ergot in the conditions of engorgement following exposure to cold, and sodium salicylate in the chronic inflammatory conditions of the bladder.

Specificity of Gonorrhea.

In arguing against the specific nature of gonorrhea, J. W. White, of the University of Pennsylvania, in Ashurst's "Encyclopedia of Surgery, makes the following points:

Gonorrhea.	Specific Diseases.
1. No period of incubation.	1. Definite period of incubation.
2. Caused by a variety of agencies, chemical, traumatic and infectious.	2. Caused always by the absorption of a definite virus or morbid product.
3. Predisposes to a second attack.	3. Protect from a second attack.
4. Associated only with ordinary processes of inflammation.	4. Have distinct and almost unvarying peculiarities as regards their pathology.
5. May be re-awakened or reproduced at will and indefinitely.	5. Run a definite course, and cannot be made to return after their completion.

In answer to which Dr. O. T. Osborne, of New Haven, in support of the contrary belief, says: "Regarding his first point—that there is no period of incubation—it seems unfair to assume that because gonorrhea may show itself any time after the first twenty-four hours after infection, there is no period of incubation. Why cannot the period of incubation be short, varying from twenty-four hours to several days, as well as the accepted specific diseases with longer periods of incubation vary by a much greater number of days? The shortness of the period of incubation is easily accounted for when we remember that this poison is applied in concentrated form directly to the part which is most affected in this disease, and in that form which we believe to be ready for action, without any change whatever morphological or otherwise. Keyes says "The incubation period of gonorrhea is usually from five to eight days," thus expressing his belief in a distinct incubation period.

The second point that Dr. White makes—that gonorrhea is caused by a variety of agents, and a specific disease by but one cause—cannot be accepted in argument, as it asserts that a urethritis caused by contact with virulent pus from a vagina is the same as a urethritis caused by a chemical agent, and White himself acknowledges that the former is more likely to develop untoward symptoms.

His third point is perhaps his strongest ar-

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gument. But have we not an analogue in diphtheria, which we all believe to be a contagious disease with a specific cause?

And if Saenger, Oppenheimer and others are right, that there is "latent gonorrhea," then we can easily see how such a gonorrhea could again become acute by renewal of the cause. Hence the purulent discharges after the first attack would be only a reappearance of the disease, as we have in syphilis.

His fourth point can be easily answered if we believe that the gonococcus is the cause of gonorrhea. If we do not believe in the gonococcus then the marked virulence of the urethritis caused by contact with gonorrheal pus, and the fact that a few drops of gonorrheal pus placed in a healthy urethra or eye will positively set up an inflammation, while equal quantities of pus from other sources will not cause inflammation in these parts certainly shows a distinct pathology. Were all inflammations of the urethra the same, one drop of pus, whether from a case caused by a chemical irritant, or from a case caused by contact with gonorrheal elytritis would have the same power of infection. This is not the fact; hence the drop of gonorrheal pus must contain some specific element, although we may not have discovered it.

His fifth point is another strong argument, unless we believe in the "latent gonorrhea" If there is a "latent gonorrhea" we could easily understand how it could be reawakened, and we have a perfect analogue in the exacerbations of a sleeping syphilis.

The Closure of the Vesical Wound After Suprapubic Cystotomy.

In experimenting on the cadaver and on animals, Dr. Alexander Bremer, of Vienna, concludes that the following method makes a hermetical closure of the organ: After the bladder wall is elevated by tenacula, a wound of four or five centimeters is made, and the mucous membrane is separated from adjacent tissue for a short distance from the wound's margin. The incision is then surrounded, purse-string-like, at a distance two to three mm. from its border, by a continuous silk suture, piercing only the submucous tissues, and not going into the cavity of the bladder. A second suture is passed through the muscular coat in a similar manner, after which the opening is puckered until closed tightly by drawing on the sutures, the stump of the mucosa being covered by that of the muscularis.

The procedure has given satisfaction to the experimenter.

Indications for Internal Urethrotomy.

G. Buxton Browne, M. R. C. S., gives the following as indications for the performance of internal urethrotomy:

1. When time is an object.
2. In cases of meatal or penile strictures.
3. In cases where the gentlest interference by means of bougies is followed by rigor.
4. For resilient strictures.
5. Where much induration exists.
6. In impacted calculus behind a stricture.
7. In cases of urethral fistula associated with stricture.
8. In the catheter life of elderly men, where a stricture prevents the passage of a fair-sized instrument.
9. In the treatment of perineal abscess where stricture co-exists. Besides incising the abscess it is important to treat the stricture at once, if the risk of a fistula is to be avoided. Gradual dilatation is here of no avail.

The condition given as the eighth indication should, I think, be modified. In old men the subjects of hypertrophied prostate, the bladder and kidneys are likely to be in an irritable state, if not actually the seat of inflammation, and the operation of internal urethrotomy on a deep-seated stricture in such cases would involve greater danger than the treatment by gradual dilatation. A small-sized catheter might be used until the stricture is dilated sufficiently to allow of the introduction of a "fair-sized" instrument, and its continued use after that would maintain the patency acquired.

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ORIGINAL ARTICLES.

REMARKS ON THE SURGERY OF ANCHYLOSIS.

BY DR. G. W. BROOME.

[Read before the St. Louis Medical Society, March 10, 1888.]

The text of these remarks is based upon the case presented before this society on last Saturday night by Dr. Steele. A memorandum from which I intended to review some of the points of this report was jotted down at the time the case was being presented. This was done with a view of following in the debate, but feeling that a discussion calculated to inveigh against the course pursued in the treatment of a case so important, and which involved so much concern to the future comfort of the patient, would be hardly proper in the presence of the patient herself, I refrained from making my remarks until this evening. Although no criticism I proposed to offer upon the surgical method adopted and carried out by Dr. Steele in this case would convey any special harshness, yet I trust that the spirit which actuated my disinclination to even offer a reproachful intimation, however modestly expressed, in the presence of the patient concerned, will meet with cordial approval. Convinced of this fact, and in order to avoid similar embarrassing situations, I would respectfully suggest that in future such patients may be excused from the hall immediately after the exhibition of their case and before the subject comes up for debate.

The rule prevails to-day, I believe, that excision of the knee-joint for overcoming a faulty anchylosis should, under all circumstances, be the last expedient which the surgeon should resort to. In deformities not involving the articulating ends of the bone, in degeneration of the joint, exsection should not be considered as expedient nor even justifiable.

It has been a common thing for surgeons to conclude that a joint is irreparably damaged when they heard or felt the articular ends of the bone grating upon each other. The fact should not now be overlooked, however, that there must be a period in every joint disease, which is to be cured by anchylosis, where this grating sensation is to be experienced. This is the case before the articular lamina is actually removed by absorption. When the articular lamina is removed, consolidation can take place, but just before that period it is plain that the friction or rubbing of two layers of compact bone upon each other may produce a rough grating, and might lead to the erroneous conclusion that those portions of the bone which ought to be in a healthy condition in order to secure anchylosis are irreparably diseased. It is plain, therefore, that the justification which in the surgeon's opinion would warrant such an operation as exsection of the large joint, must not be based upon this symptom alone.

In cases of fibrous or false anchylosis involving the patella and tendons upon either side of the knee-joint the modern method, I believe, is the subcutaneous operation. The patella may be detached in this way or removed through an incision first, and then if necessary all the tendons involved be severed, and the leg be brought into that position which may conduce to its greatest utility. The operation of dividing tendons is so simple and attended with so little danger that any number may be thus cut, at one sitting, without any alarming degree of constitutional disturbance to the patient.

Thirion, of Namur, removed the patella for necrosis almost six decades ago—in the year 1829—preserving a useful joint. Since then this operation has been performed many times; Dr. Knoda, of our own state resorted to the same in 1860 for necrosis following a fall, the result being a good and useful limb.

Bony anchylosis in a vicious position at the hip joint is best overcome by sawing the femur through subcutaneously. Then there is no microbic filth to combat, and the great majority of cases pursue an uninterrupted course, attaining excellent results. As has been observed, however, operative exposure

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of the medullary tissues of the long bones through an open wound is a dangerous procedure, but of course not quite so great if suppuration can be excluded from the wound, a ontemplating the subject of antiparasitical surgery, of course it is understood that the aseptic discipline is a purely preventive one. That is, the aseptic form of treatment consists in the proper management of the fresh or clean wound in order to prevent its septic infection, and it is the adoption and practice of this method that brings prevention to the front as the watchword of modern practice, and by the successful employment of complete asepticism, surgery has become a conservative branch of the healing art. On the other hand, the surgical therapy, embracing the antiseptic conduct, relates to the treatment of such wounds which have already become the seat of infection and suppuration.

In associating our obligations toward the patient with reference to the conduct of wounds made by the surgeon, Gerster clearly reminds us that: "It cannot now be denied that the surgeon's acts determine the fate of a fresh wound, and that its infection and suppuration are due to his technical faults of omission or commission." So in animadverting upon modern rational surgery the aspersions might be considered as dogmatic.

It may be inferred from the analogous applications of these remarks that I was not impressed with the belief that an excision of the knee-joint was a justifiable operation in the case reported, and the plea proposed to be emphasized is, that where a minor surgical procedure can be made to afford relief to any considerable extent, the surgery involving the magnitude of an exsection of a large joint is never warranted.

Indeed, complete excision of the knee-joint including the articular ends of the femur and tibia, such for example as was illustrated by the case brought before us, is a surgical enterprise considered at the present time as possessing traditional interest only.

The controversy which raged years ago as to the propriety of performing hip-joint and knee-joint excision for anchylosis, terminated in a complete victory for the advocates of conservative surgery, and so far as my information goes, no author in modern surgery has attempted to question the justice of that verdict.

In further considering the several features of this case a very decided doubt exists in my mind as to even the limited usefulness of the limb operated upon. I may even venture the prediction that the young lady will in the course of her life many times wish for the substitution of a jointed artificial limb in place of that shortened, stiffened and almost useless extremity, which must necessarily be cumbersome to her. In justice to the operator, however, it should be stated here that the excision itself has been admirably executed.

PAPILLOMATOUS CYSTIC TUMOR OF OVARY, WITH A HERNIAL POUCH DEVELOPED IN THE CICATRIX OF THE ABDOMINAL WOUND FROM A FORMER OVARIOTOMY.

BY L. H. LAIDLEY, M. D.,

Prof. of Gynecology, Beaumont Medical College; Surgeon to Protestant Hospital; Consultant to St. Louis Female Hospital.

Read before the St. Louis Medical Society.

Mrs. C., æt. 39, American, married, had one child which is now eight years old, gave the following history: She was of healthy parents, menstruated at 14 years, was a healthy girl, married at 22. Eight years ago she had an ovarian tumor removed from the left side (it was a large, multilocular, benign ovarian tumor). One year after the operation she was delivered of a child at full term. The recent operation and the pregnancy developed a large hernial pouch which allowed the bowels to protrude, forming a tumor as large as a child's head at full period. No instrument could be made to keep the hernia in position, and for the past two years she was confined to the house. Eleven months prior to my first visit another tumor made its appearance beginning in the right iliac re-

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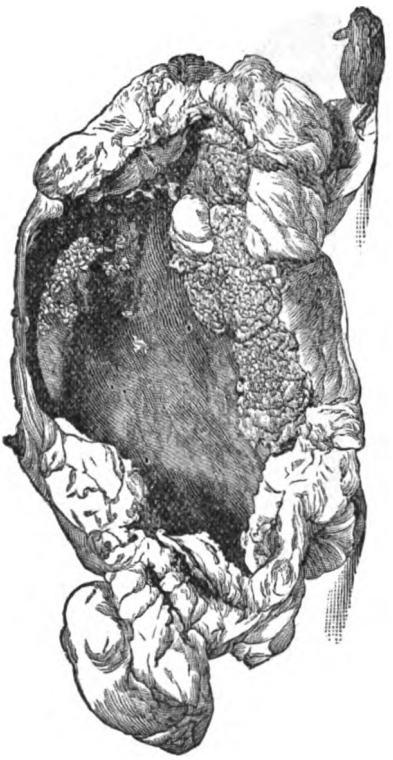
gion; it developed rapidly occupying a position on the right side which could readily be felt through the hernial sac. Five months after its first appearance a "magnetic doctor" was allowed to treat the case, which he did by "the laying on of hands" in this case rather roughly, as the results will show. The said doctor claimed "to coax the fluid out through the fallopian tubes." When the tumor was pressed upon, the patient noticed a great rush of water with blood from the vagina. This was repeated sometime afterwards with the same results, the tumor almost disappearing. I was called last Nov. and found a deplorable state of general health; anemic, appetite poor and so weak that she could not go from her chair to the bed without considerable fatigue. She had a distinct mitral bruit, weak and rapid pulse, temperature 100° F. I continued to visit her for one month, feeding and administering medicines to build her up. She urging an early operation, an examination of the abdomen revealed a tumor in the right iliac region as large as the head of a child at full period, which was fluctuating, movable and easily defined by percussion. The uterus was plainly felt through the hernial pouch, separate from the tumor. Change of position did not influence its shape. No edema of lower extremities or abdominal dropsy. Examination per vaginam showed a violent vaginitis with an opening through the floor of Douglas' culde-sac, which allowed the passage of a sound in the direction of the base of the tumor. A fluid escaped through the opening: pressure on the tumor increased the flow. That which escaped was white in color and mixed with blood. The amount of flow per day was estimated by the patient to be one pint. Diagnosis, cystic tumor of right ovary, probably unilocular with fistulous opening into vagina. An operation was performed Dec. 6, with every antiseptic precaution, assisted by Prof. Coles and Graves, and members of the senior class of the Beaumont Hospital Medical College. An elliptic incision was made over the site of the tumor at least 7 inches in length, the tumor exposed and the fluid drawn off, which was the same observed flowing from the opening into the vagina. There was only one adhesion to tumor; that of the extremity of the appendix vermiformis. This was torn off with the finger nail, and the end cauterized, completely controlling hemorrhage.

(Greig Smith reports his having to remove the entire organ with no serious results). The tumor was lifted from its broad base which was transfixed at its attachments to the floor



Papillomatous cystic tumor of ovary.

of the pelvis, the ligature tied, and all that remained of the sac charred with a hot iron. Another ligature was placed below, and entirely around the pedicle, so as to close any opening that might exist with the fistula leading to the vagina.

Attention was now given to the hernial sac. Before operating the line of incision was mapped out with iodine so as to remove all the pouch and at the same time be able to approximate the walls. The measurements

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before operation were seven inches by four and a half, a portion of the mesentery was attached to the cicatrix of the old wound, and it was ligated, cut and returned to the abdomen. The cavity was thoroughly cleansed of blood, the edges of the wound, (closed with sutures less than ½ inch apart) were made to coaptate accurately, a drainage tube placed in the lower angle of the wound the parts dressed antiseptically and the pa-

Hernial pouch showing the shallow secondary pouches in the peritoneum.

tient put to bed. Reaction was complete within two hours, and for the first time since November, her temperature was less than 100° F. A most aggravating nausea which would not yield to any of the prescribed remedies continued, necessitating feeding per rectum from the first day. The temperature range for the first twenty-four hours was 99° to 99.8°, pulse 72 to 80. She did not sleep more than one-half hour during the night. On the second day the temperature continued less than 100° until 9 P. M., when it rapidly rose to 103-8°, the pulse was rapid and weak, a dusky hue of the face was present with constant nausea, which forbad anything remaining in the stomach.

Believing that I had an incipient peritonitis to deal with, I ordered hydrarg, sub.mur. gr. ijss. placed upon the tongue which was the first retained since the operation. I continued the dose every half hour until ten grains was used, when I gave every hour mag. sulph. grs. xx—two doses were given—at 2 A. M., the next morning by the use of a rectal tube a half pint of thin fecal matter was expelled, which was followed by an enema and the bowels thoroughly cleaned out; flatus for the first time began to pass; the patient became free from pain and slept for six hours. The temperature went down to 99.6°. From this time she retained food, and showed nothing unusual in the progress of the case. On the seventh day the stitches were all removed (the tube having been removed on the fifth day) showing the walls had united by first intention. A well fitting truss, made from the cast of the abdomen was adjusted four weeks later, which allowed the patient to go about the room with comfort. Examined three months later, she was much improved in health, the fistulous opening into the vagina had closed, and the operation had proven entirely satisfactory. I submitted the tumor for examination to Dr. Adolf Alt, who reported that it was of the papillomatous form.

Coblenz believes that when ovarian tumors show a papillomatous development they invariably arise at the hilum of the ovary, this form is the most common affecting these organs, and like villous growths elsewhere is not always malignant. In the malignant form papillary growths will be found in patches upon adjacent structures or else the womb and broad ligaments are also involved in one cauliflower-like tumor. Tait observes that he has had two cases of ovariotomy in which he left large masses of papilloma attached to the womb, yet in each case these

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masses wholly disappeared and the patients are both in perfect health. If this is true, may we not hope that this specimen is a benign tumor.

This tumor was roughly handled five months before the operation, causing the fistulous opening. May we not conclude, if it is true, as Tait and Bantock claim, that tapping hastens on a degeneration, and after an accidental rupture of such a cyst the peritoneum will be found studded with patches of papillary cancer, (hence they argue that ovarian tumors should never be tapped and that they should be removed in their earliest stages before any malignant transformations have taken place), that had this tumor been removed entire at the time it was injured, there would be no question that it would not return.

Grand and Washington ave.

Professor Goodman exhibited at his clinic at the Medico Chirurgical College a boy on whom he had operated at Wills Eye Hospital for a malignant growth in the orbit and the antrum. The contents of both cavities were removed, and the exposed surfaces seared with a hot iron. Dr. Ziegler, the house physician at Wills, undertook to fill the orbit by means of "sponge grafting" and when the patient was exhibited the process was well under way, the orbit being half filled with new tissue. The part yet unfilled Dr. Zeigler keeps constantly plugged with bichloride gauze, soaked in boro-glyceride.—*Medical Times.*

Literary Notes.—Who are the Anarchists? What is their doctrine? Why would they overthrow society and government, and why do they wish to substitute? These are questions frequently asked by thoughtful citizens. An article by Z. L. White, in the March number of *The American Magazine*, will answer such inquires, and show the depth and virlence of the disease of which the Hay-market murders were only a symptom.

WEEKLY MEDICAL REVIEW,

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J. H. CHAMBERS,
914 Locust Street, St. Louis, Mo.

SATURDAY, MARCH 31, 1888.

Compliments and Congratulations of the Season.

Gentle, soft and balmy spring has been ushered in most gloriously, and all the world is full of cheerful cordiality, blooming fragrance, smiling sunbeams and notes of gladness, and the Weekly Medical Review begs leave to present its compliments and assure its thousands of readers that taking one consideration with another, it is doing quite well, and hopes these few lines may find them enjoying the same blessings.

We have the assurance of our pushing and persistent publisher that the year 1888 will mark an issue of 260,000 copies of this journal, and taking these with the other medical journals published by him (viz., the "Courier of Medicine," the "Annals of Surgery" and the "American Journal of Ophthalmology"), our near relations, "our sisters and our cousins and our aunts," as it were, we suggest that the bulk of the wherewithal needful to run this journalistic family must come from those who gain most from it—the subscribers. We trust that all the recipients of "sight drafts" sent out by the publisher will respond in the proper spirit, bearing in mind that the bank must be paid for its trouble, whether the drafts are honored or otherwise.

On general principles, short accounts and prompt payment make long friends, but if there be any really desirous of continuing subscription to any one or all of the journals mentioned, due patience will be practiced toward them. We are certain no sensible

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man (and all our subscribers are extremely sensible) will take exception to a gentle presentation of a bill, and where the same has been pigeon-holed or over-looked, by the same token they on second thought cannot object to the every day observed commercial plan of collection through a bank.

Bright, sunny days are fading away, and some days must be dark and dreary, but whether it be the rain, the snow or the rainbow tinted drops of dew which fall into our lives, let one of the governing principles directing us be to "pay as we go."

The Way to Avoid the Draft and Prevent or Cure its Chilling Effects.

In the spring when doctors' fancies lightly turns to thoughts of medical society gatherings and other *conventionalities*, and the prevailing disorders of their particular section of country they should bear in mind that this is truly the season of *drafts* and knowing full well how much exposed their patients are to the discomforts and inconveniences occasioned by them they should bear in mind that they themselves are more than usually open to such dangers and though their weary round of work be of a character conducive to carelessness they should not permit themselves to become oblivious to their perilous position. But while we are willing to grant that there is nothing more depressing or chilling to a victim than a draft, particularly if it be for a large amount and difficult to meet, yet the one receiving it in the proper spirit and responding in the proper manner can but be benefitted by it. The suddenness of its reception may sometimes almost take our breath away, but if we rally and do our duty we will at once *check* the discomfort and feel the glow of warmth and satisfaction which ever follows a good act well done.

These prefatory paragraphs are for the purpose of pointing the attention of such of our readers as have been "drawn upon" during the past few weeks by our patient and persevering publisher for the amount of their subscription to the fact that in all things the "laborer is worthy of his hire."

The medical man should be the first paid individual in the community rather than the last,and that he is not is largely his own fault. Did he present his accounts promptly and insist upon prompt settlement he would soon have his patients educated to the business habit of prompt remittance and he would be saved the amount paid out to collectors and loss from bad debtors not to speak of the wear and tear of mind resulting from his own realization of the marked ingratitude of those who fail to pay, and the difficulty of meeting his own obligations owing to the fact that the money he has earned is not in his own pocket where it belongs.

We would remind the few that have recieved this "gentle reminder" in the shape of a draft, and have shown an indisposition to "take the hint," as well as the handful (composing a meagre part of the army who responded satisfactorily), who manifested painful hypersensitiveness to the extent of discontinuing subscription, that business is business, and no machine in the world can long run unless properly lubricated, and no animal can work save and except it be well fed; and that as grease for printing machines and food for the animals who run them, there is nothing "*like* unto" Cash.

Let us in our relations with one another be thoughtful and considerate of mutual good, bearing in mind that a *dun* is not an insult whether given to patient or subscriber and should be met in the proper spirit in a practical manner. Let us resolve to pull together without friction, giving financial as well as moral support when needed. We know the determination of our publisher is to give value received; to present to the busy workers of the profession the best in the way of mental pabulum that money can buy; to give them a medium through which they can know the progress being made in science; inviting them, subscribers or non-subscribers, one and all, to contribute literary matter.

We are sure that not one of our readers is desirous of receiving something for nothing,

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but prefers to give a *quid pro quo* for all favors.

Low Fees and the Contract System.

"Oh wad some power the gifte gie us,
To see oursels as others see us."

There are men in every calling either in business or professional life who hold loosely to those ties that should bind men together, and in consequence of it seek to strengthen themselves at the sacrifice of the personal and community interests of their associates and confreres. These gentlemen always reckon and build unwisely, for the only brilliant conception of their very active imagination seems to be how to serve self, and by fair means or foul, to erect on a tenous and flimsy basis their fortunes and reputations, utterly regardless of character and honorable upright dealing. As a rule, this class of individuals are extremists, narrow, bigoted—the veritable fox finders—ready to cry extortion, extortion, when there is no extortion; and yet in the end become the chiefs among the exorbitant fee mongers. It is well that as a class they are *sui generis*, standing alone, only when they seek the society of the over credulous and ignorant, or when with brazen effrontery, they bob up serenely in some benevolent association laying claim to wonderful scentific attainments and achievements, contracting to take individuals or families at rates so ruinously and villianously low, so small that even the veriest quack would hesitate to accept them as compensations for his services. This is not honorable competition, established on the foundation of merit, experience and brains, but the rankest venality fostered and strengthened at the expense of all that is pure and noble in professional character and life.

We say this with no desire to speak harshly towards anyone, or to plead a surplus of virtues above others, but simply to raise the question, and let each physician in the active practice, examine himself and to see if by word or action he is encouraging or perpetuating a system, that sooner or later will destroy his own usefulness and influence and at the same time sap at the very foundation of the medical science and medical art. Can a physician advance his own interests or that of his clientele, by contracting to do practice at a lower rate than will maintain his dignity, standing and culture in the community in which he lives, or in the profession that he delights to honor.

If medical knowledge and skill are the only true tests of the real physician, will this be increased by the medical man offering his services to the lowest bidder and seeking by such base competitive methods to barter knowledge and skill, as a common vender would his wares in the open market? Does not this knowledge and skill come to physicians after long years of patient toil, honest research and perservering application? Does it not then represent to him his stock in trade and can he therfere as a practical buisiness man afford to place a lower estimate upon the capital thus invested than he would if the same amount in money was placed at a legal rate of interest, or invested in some business enterprise? It occurs to us that the absence of a broad and enlightened conscience, insufficient culture and a purely selfish greed, lie at the bottom of this unnatural and unholy traffic in human suffering. To eradicate and overcome this unhealthy state of affairs the standard of medical education and moral responsibility must be elevated to to the topmost round, so that none but brainy educated and honest men can enter the ranks of the profession. It is only when this much needed reformation is accomplished, that we can talk of equality and a proper leveling up of the fee question, on the bases of perfect equity and strictly scientific principles. Do sensible men in and out of the profession, affect to believe that a medical man can devote his time, his talents, his opportunities and the prime of his young and vigorous manhood in a calling that only gives promise of a meagre subsistence and yields to him less than the same amount in money would secure to another man by a judicious business investment? Upon the strength of low fees

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and the contract system, will the doctor keep pace with the progress made in the various departments of medical science and thereby become a highly cultured, educated and well-informed practitioner of the healing art?

If he is diligent, painstaking, practically scientific, and thoroughly versed in current medical literature, will he not become an infinitely better doctor, and should he not therefore by reason of it demand and receive an honest and satisfactory honorarium for his services?

Of course, there can be no objection, or injustice to a man of small capital, in brains and general knowledge regulating the fee for his services accordingly if he would have the candor to admit that it was upon this basis that he makes his charge. Or that his professional services and abilities not being of the highest order are only worth so much and hence he willingly offered them at their full face value.

But to compel men of large calibre, culture and experience, who feel keenly human responsibility, as well as the importance and ualue of well directed effort to place themselves on a par in the fee question, with mediocre attainment, and no attainments, is unreasonable, unjust and unfair. Usually the men who underestimate and underbid their professional brethren are mere hangers on, without tact, ability, or gentility, and in the end become mountebanks, or moral and professional bankrupts.

Then let us encourage an honorable and praisworthy ambition born of a noble and beneficent parentage, and by every effort and through every agency within our grasp seek to raise higher and higher the standard of medical science and education, rather than adopt and pander to the questionable and self-advertising methods of the charlatan whose only aim is accumulation of gain, at the sacrifice of honor pride and reputations.

R. M. KING.

THE SHEFFIELD MEETING.

In another column we give in full a "Leading Article" from the *Brit. Med. Jour.*, of Feb. 18, which forcibly brings to mind the degree of ignorance that may exist in a civilized country.

Though Mr. Carlyle may have been right when he said, "England is inhabited by thirty millions of people, mostly fools," England cannot claim a monopoly of uneducated and supurstitious people. The lessons, which according to the journal should be drawn by Englishmen from the Sheffield meeting, are of no less importance to wise and scientific men of America. That our people are becoming better educated and broader in their views, is evident to all; but the time is in the distant future when "ignorance prejudice, credulity and folly" will cease to exist even in the most enlightened countries. So long as they do exist, it devolves upon the better favored to protect the weaker class.

Our New York correspondent has called the attention of our readers to an act, now pending before the leglaisture of that state, which, if made a law, will be a step in the right direction toward ridding our country of the patent nostrums with which so many of its people are being deceived.

No other class of men, know so well the frauds practiced by "quacks" as do physicians, and for this reason at the coming meeting of the American Medical Association some decided measures should be taken to aid in securing the passage of a law in each state, that will prohibit the sale of any and all patent medicines, the composition of which is not made known. The opposition to such measures will be strong, as the manufacturers of "sure-cures" are both numerons and wealthy.

POST-PARTUM HEMORRHAGE.

We commend the frankness of Dr. T. B. Greenby in reporting (*Med. Reg.* March 18) a fatal case of post-partum hemorrhage which occurred in his practice. If more of the accidents of practice were published, physicians would be more on the alert to avert them.

Post-partum hemorrhage cannot occur un-

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less two conditions exist; the placenta must be partly or completely detached from the uterine wall, and the uterus must be in a relaxed state. The hemorrhage may occur even before the child is expelled, or it may follow at any instant. Were it not for uterine contractions, every woman who gives birth to a child would die from hemorrhage, shortly after the separation of the placenta from its attachment to the uterus.

By palpating the abdominal wall the uterus can be plainly felt. If the uterus is contracted it is hard, if it is not contracted it is soft.

As the child passes through the vulva, the physician should place one hand upon the abdomen and knead the fundus of the uterus, and on no account should his hand be removed till contraction is secured. This does not mean that the placenta must be expelled before contraction can take place. The physician's duty is to the mother first and then to the child.

The method used by Dr. Greenby; placing one hand directly into the uterine cavity and removing as quickly as possible its contents, rubbing the inner walls with the knuckles, and grashing the fundus with the hand on the abdomen, is the most efficient, and most readily applied means of securing contraction.

EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

It is doubtful whether coffee is sufficiently appreciated as a remedial agent and a prophylactic against disease. We all know that a cup of good strong coffee will frequently abort a chill, and that the beverage is antagonistic to malaria is unquestionably true. The custom of taking black coffee in its purity an hour or two before breakfast which prevails in the South is based more upon reason than rhyme.

Dr. H. S. Kerr, of Westfield, Ind., writes to the *Ind. Med. Jour.* as follows:

"During the last six months there have been a number of typhoid fever cases in this neighborhood; and in reviewing the cases in my own practice and of my neighboring physicians, I notice that nine-tenths of the persons attacked by the fever were those who rarely if ever drank coffee. I would like to hear from the readers of your *Journal* on this subject. I have looked upon this as a coincidence, as I do not think that coffee has any preventive qualities as against typhoid. But the fact that persons who drink coffee do not drink as much water as others, and the water in the coffee being boiled, all bacterial life would be destroyed, may account for the coincidence."

We have no evidence that coffee is in any form a germicide, but we do know that it is so supporting and strengthening as to render those who use it less susceptible to fatigue, disease and deleterious influences in general. If the laity could be made to understand that as a stimulant to victims of accident it is far preferable to alcohol, much good would result.

* * *

It has long been known that circumcision is practiced by the Jews as a rite, and by some individuals for hygienic or prophylactic purposes. It has been thought to lessen the sensibilities of the glans. There is no reason to doubt that the practice had a beginning prompted by hygienic necessities. En passant, it is well to remark that the Gentile as well as the Jew can practise it as a "right" if he desires to, and it would be well for him to do so. I remember when a student, six—well, a good many years ago, the late Jno. T. Hodgen, remarking upon this question that there was a considerable amount of "clap-trap" about a long and narrow prépuce; this struck me as a "nut-shell" expression of the idea.

In more ways than one Moses was a wise law-giver.

* * *

The danger of too many consultants.—Sir James Paget, in a lecture on "Dissection Poisons," said: "Sir William Lawrence used to say that he had not known any one to recover on whose case more than seven had

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been consulted. Our art has improved. I had the happiness of being attended by ten—Sir Thomas Watson, Sir George Burrows, Sir Wm. Jenner, Sir W. Gull, Dr. Andrew, Dr. Gee, Mr. Cæsar Hawkins, Mr. Savory, Mr. Thomas Smith, and Mr. Karkeel. In this multitude of counsellors was safety."—*Med. Record.*

The fact still remains, that even though in cases where diagnosis and treatment are in doubt, consultations should be encouraged, in the majority of instances "too many cooks spoil the broth."

* * *

Will "our friend Ferguson" cast his eagle eye back to p. 155 of his January number and then permit me to remark that the wrong person being credited with the brilliant effusions which have been the product of the secretion of the cerebal organs of the various pungent paragraphers composing the staff of the WEEKLY MEDICAL REVIEW necessitated the adoption of a rule whereby all matter, good, bad or indifferent, genial, cutting or kind, should bear the signature of its author, except that furnished by our association editor, and an announcement of the fact be at the head of our editorial columns.

I have had my "gastric consciousness" and my modesty much disturbed in times past by being credited with that which I had not the capacity for doing.

Through an oversight there was permitted in these columns some months ago an uncalled for and brutal attack upon a foreign member of our profession who, but a few weeks before, had been the honored guest of an official body in which two members of our staff held official position. The proper apology was made for that which never should have been written. Under existing conditions such an event could not occur. Dear Ferguson, "by a masterly struggle, grasp the idea" that prior to January 1, 1888, the parentage of points pertinent or impertinent was possibly indefinite. Now, every tub stands on its own bottom. With charity for all and malice toward none, the scintillation of each genius must go for what it is worth. If good, credit to his cerebral consciousness; if weak or vile, charge up to his "gastric consciousness" instead.

* * *

In the discussion of pediculosis at the American Dermatological Association, Dr. White stated that for pediculus capitis and pediculus pubis, he always used crude petroleum, as it was effective and never produced the slightest irritation on the most inflamed surfaces. He advised that it be kept in contact with the hair two or three hours. It strikes me that a more desirable application from an esthetic point of view and quite as efficient therapeutically would be one grain of corrosive sublimate to the ounce of rose water. I recall the case of a refined and sensitive young man who became possessed of a severe attack of disgust following the liberal application of the greasy and dirty blue ointment to his pubic parts advised by his physician, when he contemplated the sweet smelling comfort in which his brother indulged in the use of the above mentioned rose water solution of the bichloride for the relief of a lousy invasion of the same region coming from the same source. The well greased brother had reason to feel that comparisions were "odorous."

* * *

Among the many good things Dr. Frank C. Ferguson of Indianapolis has said is the following:—"In obstetrical practice never introduce the finger or hand into the genital passage, without previously having washed them in an antiseptic solution—carbolic acid, corrosive sublimate, etc.

The best antiseptic precaution consists in practicing the vaginal touch as seldom as possible.

The vaginal touch should only be practiced when necessary for diagnosis, or to follow the progress of labor during the expulsive stage."

Which suggests the thought that in all our work we may well bear in mind that Biblical quotation"Cleanliness is next to Godliness." But few men would be frank

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enough to admit that they had transferred a fungous disease from one patient to another by means of their own instruments, they having failed to sterilize the same. Which reminds me that I never submit myself to "barber-ous" manipulations but that I close my eyes to the dangers of micro-organisms, fondly hoping that the manipulator is more generous in the use of soap upon himself than upon his victim.

The tonsorial occasion is one likely also to recall the old "fourth of July" patriotic aphorism "In union there is strength."

CORRESPONDENCE.

PARIS LETTER.

PARIS, March 12, 1888.

In an able essay Dr. Hyvernaud has pointed out the beneficial effects that may be obtained with chlorate of potassium in the treatment of cancroids. He has treated 63 cases of this affection by this method; 32 of the patients were cured; 15 were benefitted by the treatment; 16 cases were treated unsuccessfully. The cancroids which were cured were situated on the skin of the face, nose, eyelids, cheeks, neck, in the lumbar region, on the back of the hand and on the internal surface of the leg. Chlorate of potassium fails in checking the rapid evolution of cancroids of the mucous membranes, although two cases of epithelioma of the lips and nostril were cured by it. This substance is especially efficient in treating cancroids characterized by slow evolution and ulceration. In cases where the cancroid is voluminous, exuberant or serpiginous, and where it has destroyed the subcutaneous tissues by ulceration, the effects of chlorate of potassium are transitory or negative.

A solution at 6 per cent, slightly heated, or a fine powder of this substance is applied to the wound, previously freed from scabs. The dressing is renewed one or more times daily. The effect of the solution is chiefly to heal the wound. The powder slightly cauterizes the wound. The surface of the tumor or ulcer is thus mortified, small eschars come away and cicatrization ensues. Recovery is usually gradual. Recurrence is occasionally observed, in which case cicatrization is retarded. In most cases several weeks or even months are required to obtain complete cicatrization.

M. Terrillon has performed ovariotomy on 35 patients. Of this number 20 recovered. Four of the patients died. The first of these suffered from a voluminous cyst. There was albuminuria. The operation lasted 2 hours. The patient succumbed to exhaustion. In the second case the patient was 61. There were complete adhesions. The operation lasted one and three quarters hours. The patient died from exhaustion on the third day. The third patient was 49. She presented a voluminous cyst, which adhered closely. The operation lasted three-quarters of an hour. In the fourth case the patient was 22; she suffered from an enormous cyst. The operation was incomplete,and the patient died five hours after it. In no instance death resulted from peritonitis or infection.

In 7 cases the operation was quite a simple matter; in 8 cases the broad ligament was invaded. M. Terrillon insists on the necessity of taking proper antiseptic measures. He considers it advisable to substitute vegetable sponges or a spongy tissue for ordinary sponges. The cleaning of the peritoneum with boiled filtered water is an important matter. M. Terrillon administers purgatives the day after the operation, especially in the case of patients who are troubled with wind or colic.

M. Terrier found that he could remove the clots of blood with sponges, without washing the peritoneum. He does not consider that water which has been merely boiled is entirely free from germs and spores. He would only consent to cleanse the peritoneum with water boiled at 120° Cent. (248° F.) He does not agree with M. Terrillon regarding the advisability of administering purgatives. In cases where there was vomiting he administered injections.

M. Championniere considers, from his own

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experience that sponges may be fearlessly employed.

M. Pozzi stated that he objected to them for the reason that they were most difficult to clean properly.

The *Revue de Therapeutique* of Feb. 1, publishes the following note by Prof. Jaccoud, regarding the question whether young girls affected with an organic lesion in the heart should or should not be allowed to marry.

Prof. Jaccoud considers, notwithstanding M. Peter's views, that no absolute rule can be made. If the lesion in the valves of the heart has never produced disturbance, then marriage is permissible. If symptoms of asystolia (especially in lesions of the mitral valves) have been observed, then there is considerable risk in marrying. Pregnancy would be very critical, on account of the pulmonary inflammation it would determine.

M. Chamberland's report on the new law proposed by M. Siegfried, in June of 1886, for the reorganization of the Administration of Public Health in France, may be summed up as follows:

This new law does not propose to deprive a mayor of the right of ensuring the salubrity of his own district. If, however, he fails to accomplish this object, the prefect of the district would be authorized by this new proposition to call upon the mayor to take the measures required for public health and security. If the mayor ignores this demand, then the prefect has the right to take matters into his own hands.

The law of March 3, 1822, authorizes the government to step in in the event of pestilential epidemics, etc. This law would remain unaltered by M. Siegfried's proposition, which has one particular aim in view, namely to ensure the proper execution of the sanitary laws.

With this object an authorized health officer would be chosen for each department, who would see to the execution of necessary sanitary measures, inquire into the hygienic conditions of the different districts of his department, and point out any reforms that might be required. In connection with this health officer a Council of Public Health, composed of the principal scientific and medical men of the department, would be organized, who should discuss all matters pertaining to general hygienic conditions. A superior Council of Public Health in connection with the government would centralize the works accomplished by the councils of the different departments and establish a regular and uniform organization for public health in France. At the head of this administration would be placed a representative of the government, or rather a director of public health.

M. Siegfried's new law proposes fusing the present administration of Public Health and the Assistance Publique into one organization which should be attached to whatever department of the ministry appeared most suitable, but not as at present, to the ministere des commerce.

The superior Council of Public Health would replace the actual consulting committee of public hygiene, but the number of members of the new council would be increased by members inhabiting the provinces. The number of meetings would be reduced to two yearly meetings.

The director of public health would replace the actual directing committee, which is composed of three members; two general inspectors would be commissioned to visit different localities in France, more especially in the case of epidemics, to see that proper sanitary measures were adopted.

The inauguration of the monument raised to the memory of M. Jules Beclard took place at Pere la Chaise, on the 10th inst. M. J. Beclard's bust is connected with that of his father's by garlands of palm, oak and laurel leaves.

A large number of professors of the faculty, of members of the Academy of Medicine, of doctors and students were present at the ceremony.

After removing the crape which surrounded the bust of M. Beclard, M. Laborde, his intimate friend and associate, in the name of

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Mme. Beclard and her children, and of the Subscription Committee, expressed thanks in warm and eloquent terms to those who had contributed to raise a monument to M. Jules Beclard, and to associate the memory of father and son in their last resting place.

Discourses were pronounced by M. Hebert, Dean of the Faculty of Science, by M. Brouardel, in the name of the Faculty of Medicine, by M. Bergeron, perpetual secretary at the Academy of Medicine, and successor to M. Beclard, and by the president of the anthropological society.

At the conclusion of the ceremonies a deposition of the Association of Students, saluted M. Beclard's tomb with the tricolor flag of the Association.

Dr. Joseph Saintour has made the following legacies to different institutions: an annual sum of one thousand francs (£40) to found an annual prize at the Faculte de Medecine, to be disposed of as the Faculty judges best. A yearly sum of 1000 francs to the College de France for a similar prize to be awarded according to the judgment of the professors of the college; an annual sum of 1000 francs to each of the five academies of the Institute de France, for a yearly prize, the object of which shall be decided upon by the different academies. The rest of his fortune M. Saintour has bequeathed to the Faculte de Medecine, the Academies de Medecine, the College de France and the five academies attached to the Institut de France to be equally distributed among these institutions, and to go toward increasing the sums for the different prizes above enumerated.

The French Association for the advance of science, has accorded the following grants to different authors to allow them to pursue their investigations: 1000 francs (£40) to M. Topinard to execute his map showing the color of hair and eyes in the different departments in France; 100 francs (£4) to Dr. Maurel for his researches on the causes of the influences of marshes; 200 francs (£8) to Dr. Leon Petit to publish the works of Jean Merry; 500 francs (£20) to M. Turquan to publish a statistical map of the population in France.

A Stomatological Society for the scientific study of affections of the mouth and teeth has just been founded. This society will be composed of the members who have founded it, of titular members, national and foreign corresponding members and honorary members.

The founders of this society consider that stomatology is an essential branch of medical society, and demands a complete and special course of instruction. Doctors desirous of becoming members of this society are requested to communicate with any one of the following members: M. Magitot, president, 8 Rue des Saints Peres; M. Cruet, 21 Rue de la Paix; M. Galippe, 65 Rue Sainte Anne; M. Moreau-Marmont, 23 Boulevard Haussmann; M. Pietkiewicz, 79 Boulevard Haussmann.

The administration of the sanitary service of the war department have repeated the experiments made last summer for the transport of the sick by water. In order to see whether this system could be employed equally successfully in winter, a steam boat left the quai Henri IV last week for a two days' voyage. The passengers were composed of army doctors, engineers and hospital attendants. The boat was heated by different kinds of stoves. The experiment was eminently successful, and proved that this system, by which the sick and wounded may be conveyed without jolting or shaking, will be of great advantage in time of war.

A new journal, published by Albert de Lange (Amsterdam) in several languages, and entitled "The International, Scientific and Popular Review of the Adulteration of Food Stuffs," has just appeared.

The Institut Pasteur is being constructed in the Rue Dutot at Vaugerard on a piece of ground measuring 11,030 metres, purchased by the conseil municipal for the purpose. The whole cost of the building will amount to 1,500,000 francs.

We take pleasure in calling the attention of our readers to a special offer on advertising page 8 of Medical and Surgical books. This is a rare chance to supply yourself with valuable works at cheap prices.

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WHAT ARE THE SYMPTOMS PRESENTED IN CASES OF RECENT LACERATION OF THE CERVIX UTERI?

WINFIELD, ARK., March 15, 1888.

EDITOR REVIEW:—I can not ask the above important question, in other words than I have. It is known to every gynecologist that great distress is depicted in every movement of the patient, who has a severe laceration of the cervix, with its raw surface covered with prominent granulations, which bleed easily upon being merely touched with a sound, covered with soft cotton.

The characteristic symptoms which are presented in such patients, are all too well known to those who make a special study and practice of such work, to require anything from a mere student in this line.

I wish to direct my remarks to the general practitioner, who knows comparatively nothing about such cases as I shall speak of in this paper. If I had never been caught in such cases, I could not sympathize so much with the honest physician who is honest enough to acknowledge that he does not know what to do. I have searched every work on gynecology that I have found, likewise works on obstetrics, and can not find "how we are to tell whether our patient has a recently lacerated cervix."

I need not weary the reader or take up valuable space in the REVIEW by giving clinical cases to get at what I wish to convey; but will merely give a summary of the symptoms, as presented in eight cases that I have closely attended, six of them fell into my hands from other physicians who had all exhausted their skill and accomplished but little or no good.

These patients had all had rather tedious labors, but otherwise seemed to do well until between the second and sixth week. The lochia was too scant after the first week or ten days.

The first symptom presented, is a sense of choking, which was not present all the time, but would come on by paroxysms, severe headache, weak quick pulse, palpitation of the heart, more or less inability to lie in a horizontal position, cold feet and hands, profuse sweating at times, suppression of urine, which is very liable to occur on account of the stress upon the kidneys. These symptoms are followed by a morbid fear; the patient imagining that she is going to die, and in some cases they lose their reason.

The discharge from the uterus at this time will be found to be mixed, in some cases yellow and dark, in others thin and whey-like, and more or less offensive. There is sometimes but little tenderness over the abdomen. The back is weak and a dragging sensation is complained of in the region of the uterus.

Now, what do these symptoms tell us? Is it a reflex irritation, or not? If we treat such a patient according to the symptoms, as here presented, upon general principles, what would we first treat? We would find ourselves at sea without a compass, and we would be trying every drug that had any effect upon any of the organs that we might imagine were involved.

How many such poor women have been treated for heart, kidney and liver diseases, yes, even for insanity. I will here say that I have seen two cases of puerperal mania that were caused by this same trouble and both recovered when the treatment was directed to the uterus.

These patients are regarded by many physicians as only being hysterical, and they are thus passed by. If the practitioner is not very careful in his examination of these cases, he will have the chagrin of being badly misled. If he will take a careful and unbiased view of his patient's condition, and if he is not prepared to treat such cases, call in a physician who is able, he will not compromise anything by such a step, but add more credit to his fame.

If we will notice closely in these cases, taking into consideration, the great disturbance caused by an old lacerated cervix, (as is pointed out so thoroughly by Dr. T. A. Emmet and T. G. Thomas, as well as of many other eminent gynecologists) we can better compre-

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hend the grave condition of a recent lacerated cervix with its large raw surface exuding a thick blood-stained mucus, with the accompanying subinvoluted and very tender uterus. The cause of this distress seems to be twofold. First the uterus has to some degree undergone involution,and owing to a disturbed condition of the circulation the sympathetic system is greatly disturbed, causing the reflex excitement that is manifested in so many ways; and secondly, absorption of the septic poison from the uterine cavity. But I think it is more from the first cause. These patients create considerable excitement in a community, causing much to be said and done all for the lack of the physician knowing the true pathology of his patient's condition. I think this enough so far as the cause is concerned, we will next notice the treatment.

TREATMENT.

Having satisfied ourselves that there is a laceration of a considerable degree, we then are prepared to consider the all important question, treatment. Since electricity has been so successfully used in gynecology, we can by clinical experience say that it is the remedy par excellence in this distressing trouble. I have only had the opportunity of testing its sovereign power over every other agent, in three cases.

Every physician, it is true, does not understand how to use faradism much less galvanism. The two used alternately in these cases is far the best. You want the electrolytic effect, first using the negative pole to the lacerated surface and a current strong enough to cauterize the surface well. We can use an applicator covered with absorbent cotton dipped in a solution of iodide of potassium or simply into some antiseptic solution and apply it to the surface or just within the cervix enough to come in contact with all the raw surface; the positive pole being applied over the abdomen by a means of a medium sized covered, metallic plate dipped in warm water (see Prof. G. J. Engelman's papers upon this subject in the March and April Nos. of the St. Louis *Courier of Medicine* for 1887.) Having gotten the electrolytic effect of the current, if the uterus is enlarged, which is always the case, I believe, we wish to reduce it. We use the faradic current mild, not severe enough to cause too much pain and by its use for from five or ten minutes we will soon see a considerable change wrought. Iodoform or bismuth blown against the cervix and cotton or wool tampon used we will soon give our patient ease and comfort which no other known agents can do so promptly. The bowels require but little attention. Perhaps the kidneys will need some attention. Outside of using galvanic and faradic battery applications to the cervix, such as iodine, carbolic or picric acid should be made. Let caustics alone; use the dry plan of treatment, and it will succeed after a while. Of course the physician will have to be governed by attending circumstances as to the general treatment. I could give cases which I have treated by both of the above plans but deem it useless. But will say that we can not overrate the use of electricity in such cases as require its use. Vaginal washes with hot water will be of much benefit, provided they are properly given. The ordinary syringe will not do well. I have seen great mischief done by women using injections and passing the pipe into the cervix thus throwing the water into the uterine cavity.

Molesworth's suction syringe or the ladies' syringe is the best that I know of.

CHEVER BEVILL.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, March 10, 1888, the president, YOUNG H. BOND, M. D., in the chair. J. B. PRICHARD, Secretary.

DR. G. W. BROOME read a paper on

REMARKS ON THE SURGERY OF ANCHYLOSIS.

DR. E. H. GREGORY.—I am ready to advocate any kind of conservatism in surgery, and I should certainly be oppose to the removal of a joint unless the conditions were extreme —at least I should opposed the removal of so large a joint as that of the knee, but I think

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probably Dr. Steele will be able to make clear that he did right; if he does not I will tell him so.

Dr. Steele.—During the discussion of my paper at the last meeting Dr. Broome asked me if I had thought of the possibility of detaching or loosening the patella and thus straightening the limb. I told hin "yes", but found it impracticable. Now the circumstances were these: here was a girl who, at nine years of age, fell from a wagon and injured her knee. Nine years after she comes under our observation with an anchylosed knee, at a right angle. As I detected a very slight motion in the joint, I thought that it might be possible, conservatively to straighten the limb. I always prefer to use gentle means, especially when we have a history of inflammation about the joint and epiphyses. So I applied weights for about two weeks continuously, but was obliged to desist on account of the pain and inconvenience given the patient, and I found no change at all in the flexion. In attempting to move the joint I would get a click at times, that convinced me that the patella was united to the lower end of the femur—the external condyle. There was also the posterior luxation of the head of the tibia usually found in such cases, and the danger in making extension is that the head of the tibia will be thrown back still further. This is to be guarded against if possible. I could have divided the tendon, have separated the adhesion of the patella, and then used force to straighten the limb, but I am satisfied that it would have been impossible to have done so. Why? First, because the limb had been flexed for nine years, and the condyles of the femur, being unopposed by the tibia, had grown downward. Second, the posterior ligament of the joint had shortened permanently. But suppose we had succeeded in straightening the knee and bringing the bones opposite each other, we would have had a useless limb; there would have been no joint after nine years of cessation of use, the ligaments and all the parts would have been so changed that the limb would have been useless as far flexion, and I believe so far as locomotion is concerned. Nor could we have expected bony union. So it seemed to me that there was but one course to pursue, and that was to excise the joint, freshening the ends of the bones, bringing them together and get ossification and thus give the patient a good leg to walk upon. She said her condition was miserable as it was; that she was willing to take all the chances, whatever they might be, rather than exist as she had been with a flexed leg.

If true bony union had existed between the tibia and condyles of the femur, then we could have performed osteotomy or osteoclasty; we might have fractured the lower end of the femur with a chisel, or we might have performed cuneiform osteotomy—taking out a wedge-shaped piece and straightening the leg in that way. But the tibia and femur were united by fibrous tissue, and not by bone; the patella was united to the external condyle of the femur by bone, and jutting down against the tibia it was that which clicked against, and prevented extension of the tibia.

Dr. G. W. Broome.—I understand there was simply a bony union existing between the patella and lower end of the femur. This being true I should certainly have undertaken to preserve the joint. That was why in my paper I referred to the fact that the patella had been removed a number of times with most excellent results. It has been done here in our own state. Now I do not think that Dr. Steele, who makes a specialty of these things, believes that it is necessary to freshen the ends of bones to make them unite or to anchylose them. That is not necessary at all. If the patella is in the way, the proper thing to do is to remove it and bring the bones together; and if you wish to anchylose them, you can do so by nailing them together. The case presents an atrophied leg, which no doubt was very much shorter than the other before the doctor saw her; and, as I said in my paper, it seems to me that it would have been infinitely better to cut her leg off than to leave it so very much shorter than the other. I think that there is a difference of at least seven inches; and the leg operated upon

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is much smaller; and there will be no development of the muscles, because she will never be able to exercise the limb. As she grows, it will remain as it is, so that in the present day, when artificial limbs are made with such wonderful improvements, I think the patient would be infinitely better without it. You know that with the improved artificial limb a person can play ball, skate upon the ice, and engage in all out-door sports. I am sure this young lady will never be able to do that. So, I say, if it was absolutely necessary to remove the joint, the leg should have been taken off. My criticisms were not intended to be personal at all, but were simply against the idea of cutting so much; I think that is the tendency of the profession.

Dr. Steele.—The doctor says that in his opinion there was seven inches of shortening. Measurement showed that there was three inches of shortening, and by the use of a patten of two and three quarters inches, she is able to put her foot to the ground. I am satisfied the limb will be very useful. Of course in consequence of non-use of the limb the muscles are atrophied, that is the muscles of the lower part of the leg, but the muscles which move the lower extremity and the foot are intact and will be developed. The splint which you saw on last Saturday was loose for her when it was made, but after wearing it four or five weeks it was too small for her limb, showing that the muscles are already developing.

Dr. Gregory.—I certainly am opposed to amputation. I do not believe that any artificial substitute for limb is as good as the natural limb. I promised that if I thought Dr. Steele was wrong I would say so, but I think he did quite right. The circumstances in this case, as stated by the doctor, warranted the operation. I do not know what operation was performed, but I take his statement and endorse it.

Dr. Broome.—I do not approve of amputation at all. It is one of the principles of conservative surgery to save every portion of the body that is possible, but if it was a question of performing amputation or excision I think he should have amputated the limb. As the doctor says; if a limb can be utilized at all it should be preserved, but I think the limb will be entirely useless.

Dr. Steele.—If the limb should prove useless can it not be amputated.

Dr. Broome.—Yes, but you seriously endanger the patient's life by the first experiment.

Dr. Prewitt.—I think that almost any sort of a natural leg is better than a wooden one. The case of Dr. Steele calls to my mind some cases of knee surgery which have lately come under my observation and which may be of interest to others. A boy on about the 15th of last October stuck a thorn into his knee. Violent inflammation followed which did not lead to suppuration however, but the whole leg swelled. The family of the boy objected to many things which the attending physician wished to do. They would not allow extension to be made, and the knee became anchylosed at an angle of about 45 degrees. The case was brought to me a few days ago and upon examination I found that there was no bony union; that there had been no destructive process in the knee; no suppuration. The patella was quite firmly fixed, although I could detect slight movement, and there was very slight motion in the joint itself. I determined to attempt to staighten the limb and restore the function of the joint even at some risk of exciting fresh inflammation. The joint was still tender. I put the boy under an anesthetic, and succeeded in breaking up the strong fibrous bands which could be heard to snap very distinctly, and loosening the patella. I then put the leg in a plaster of Paris splint. There was little reaction. I did not try to make the leg prefectly straight. If it becomes anchylosed, it will be in good position. I think I will get mobility of the joint.

About the 21st of December a young man came to the clinic stating that he had a bullet in his knee, which had entered at a point near the head of the fibula, and had not been found. I examined the knee and it seemed to me the bullet had been partially encysted upon the inner side of the capsule, but he had found it

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moveable on the morning that he presented himself. On further examination I found that it would slide around in the joint. I pushed it back to the position which it had first occupied, and stretching the skin over it, cut down upon it, and removed it. The parts were then brought together and the wound closed. The fluid that escaped showed that there was an amount of sero-synovial effusion into the joint, and to me it looked a little cloudy. The wound was closed with cat gut and the leg put up in plaster of Paris, and he has not had a bad symptom. It will be remembered that some two or three months ago I reported to this society a case in which I removed a loose body from the joint, the patient recovering without any bad symptoms. You will see that one side of this bul let is scraped away as if it had struck the bone. I do not know what injury was done to the bone.

Dr. Steele.—Did you in all these cases adopt strict antiseptic precautions?

Dr. Prewitt.—Yes, sir.

Dr. Wm. Johnston.—How long had the bullet been carried in the joint?

Dr. Prewitt.—Several years.

Dr. Johnston.—Did it give him any trouble?

Dr. Prewitt.—No sir, it gave no trouble; he only discovered the location of the bullet on the morning of the operation. It seemed to have been encysted.

Dr. Broome.—How long had the deformity existed in the first case?

Dr. Prewitt.—The boy with the anchylosed knee? Since October.

Dr. Johnston.—Did this boy with the bullet in his knee go around and play with the other boys?

Dr. Prewitt.—Yes, sir; he was a young man; I presume 22 years old.

Dr. Meisenbach.—It seems to me that a missile of this kind in the cavity of the knee joint must have induced a great deal of irritation. I find that this bullet is very jagged; there are indications that it has been driven against some hard substance; possibly a portion of the bone; one can hardly conceive that such a bullet could be encysted in an organ as tender in all its structures as the knee joint, without producing a great deal of irritation and discomfort at times. Of course I would not say that the bullet was not there; but the question arose in my mind how long it could have been encysted in the joint without inducing trouble.

Dr. Prewitt.—There is no question that the bullet was in the joint.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, March 1, 1888. The President, T. M. Drysdale, M.D., in the Chair.

Dr. H. A. Kelly exhibited

An Aseptic Two-way Catheter.

A two-way catheter, which will conduct and discharge water, and solutions with the utmost freedom and at the same time allow of perfect and ready cleansing after use, is a great desideratum. In the light of the antiseptic surgery of to-day the use of such two way catheters as were commonly found in the surgeon's bag a few years ago, is in the highest degree dangerous, owing to the necessarily painfully tedious process of cleansing, and the impossibility of ever being able to assure ourselves that they are clean. One of the best ever devised for the use of the gynecologist is Bozeman's. This has been modified by Fritsch and Olshausen in such a way that the delivery pipe and discharge pipe are two separate pieces, so made that the delivery pipe enters the large discharge pipe and is held in place by a cap which is screwed down on it while in use. This will be understood better in examining my modification. The objection to this still held, that although easier to clean than any previous forms, it was still difficult, and impossible to assure oneself. I have now added my own modification to this instrument, making it now perfect in its utility and answering all antiseptic requirements.

The syringe as constructed by me consists of three parts. First, the delivery tube which

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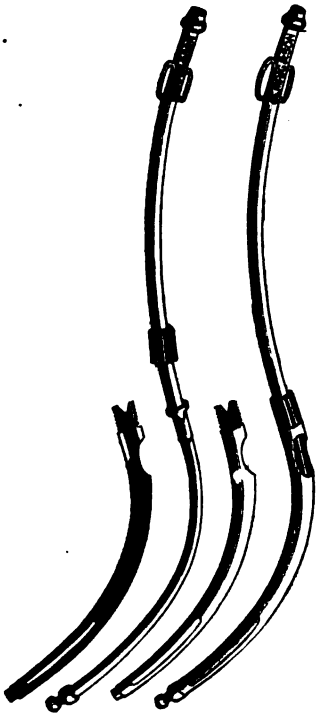
conducts the stream from the hose connected with the reservoir into the uterus. This tube is well curved, and at its entrance is furnished with a knob to hold the hose better. Its extremity ends in a button, with a series of holes around and a little below the outer margin, in the form of a rose, so placed that the stream is thrown out on all sides and directed a little backwards. The remaining two pieces are two lateral *halves* of the *exit* pipe,



which is attached very simply by entering each end in the shallow collar under this *rose*, bringing them together around the inlet pipe and screwing the nut down on the thread on their upper end.

Each side has a fenestrum in it, near the point, and is scooped out near its upper end, so that when the two are fitted together there is a good sized hole here. When in use, water flies with force from the holes at the end, washes with it debris and fluid, which enter at once the large fenestra on the sides, are washed down and out of this large hole into the receptacle. When out of use the cap is unscrewed, the halves fall apart, and every part which has come in contact with infection is at once exposed and readily cleansed. The interior ought to be as highly polished as the exterior. Mr. Gemrig, of this city, has made these instruments for me in a highly satisfac tory manner. He has made one of solid silver for Dr. Sweetnand, of Canada, which I exhibit here, with that I am now using as well as the older form.

If the nomenclature is to be kept up as in the past, it is the *Bozeman-Fritsch-Olshausen-Kelly Catheter*.

SELECTIONS.

LESSONS FROM SHEFFIELD.

Surely something must be wrong in the education given to the people, or it would not be possible in a town like Sheffield, at the close of the nineteeth century, to find such an amount of ignorance, prejudice, credulity, and folly as was seen in the Temperance Hall of that town, on the evening of February 9.

A Mr. Herring, of Leeds, gives out that he can cure small-pox in two days. At once a memorial is signed by 2,000 persons requesting the mayor to convene a meeting before which Mr. Herring could explain his plan of treatment. The requisition further stated that, notwithstanding the fact that Mr. Herring could get no recognition from the corporation, he had come to Sheffield, and already successfully treated a number of cases, particulars of which could be produced at anytime. In response to this document the mayor, very foolishly as we think, called a meeting, at which he himself took the chair. The hall, a large one, was crowded to its utmost capacity, and so great was the attendance that many persons were unable to gain admittance, while the wild enthusiasm shown by the audience was a noteworthy feature of the meeting.

A person named Adams moved the first

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resolution, which was, like the remaining one carried by acclamation. It was this: "That in the opinion of this meeting, the fearful state of small-pox in the town, the damage to shopkeepers and trade in general, the fearful loss of life, and the consequent suffering therefrom, demand that prompt action be taken by the health authorities to extinguish, the disease, and so lift the town from its present unenviable position."

Mr. Hill, the seconder of this resolution, made the statement that when a man suffering from small-pox got into Mr. Herring's bath, with the water up to his neck, and had his head sponged, it was "domino" with the disease; he does not explain, however, to what extent it is likewise "domino" with the patient.

The second resolution was, if less grammatical, more definite in its recommendation; it ran as follows: "That this meeting having had produced before it such evidence of Mr. Herring's ability to reduce the disease in an incredibly short time, and having regard to his offer to the town of Sheffield, which he now repeats, we request the town council to engage him at once, and place him in a position for showing the efficiency of his treatment of small-pox cases."

In the course of the discussion, Mr. Herring gave his auditors an account of the rationale of this treatment; it was beautifully simple. "The blood was reduced to its natural heat; and as the blood was stopped from being inflamed, the flesh was prevented from being mortified. The disease was stopped in two minutes."

An admirer of Mr. Herring, to whom the latter might justly say "save me from my friends," at this stage asked him how many cases of small-pox he had dealt with before he came to Sheffield, during the twelve years he had been in practice, and what had been the result of his treatment in these cases.

This was Mr. Herring's remarkable reply, reported in his own lucid and elegant language: "He had cured hundreds of people who had been crippled with rheumatism and drawn all shapes." "As regards small-pox," continued he, "I have only had four cases, which was cured direct in a state of fever—no spot on them. One young man that come, he had got into a state while his flesh was beginning to inflame a bit, and under the treatment it simply showed where he would have a spot, and that was gone away when the medicine was dried in. As regards typhoid it is as bad as small-pox, and it is as readily cured by this treatment. Scarlet fever, I have cured hundreds of children and grown-up people—hundreds. Once at Batley I cured twenty six children in three days."

Mr. Paul Gill asked Mr. Herring if it was true that a person had died under this treatment? But he was promptly extinguished by a woman who cried out from among the audience, "How many have died under doctors?" and by Mr. Herring, who, amid loud prolonged cheers, said: "The answer is simply this; the man was dead when I went to him." At this the chairman interposed, and declared himself shocked at Mr. Herring's statement, for that person, in speaking privately to him a few minutes before of this very case, had said that the man was not dead when he was called in to him, but so ill that he dared not give him a bath, but simply bathed his face with the remedy. Mr. Herring, however, was equal to the occasion; he replied: "I did not say he was lifeless, I said he were dead; his flesh were dead; he was simply breathing in and out of his mouth, and that was nearly closed. His flesh were all gone; no life in it. Of sourse, if there is no life in your flesh you are dead, are you not? I did not mean to say the man were lifeless, I said he were dead."

After this luminous explanation, which, however, drew forth the taunt from one of the audience: "You ain't had a school-board education," the resolution was passed unanimously amid loud cheers. On his way from the meeting Mr. Herring was followed for some distance by an enthusiastic and cheering crowd.

While the people of Berlin press round Prince Bismarck with their enthusiastic applause as he walks from the Reichstag after making a speech which echoes throughout

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Europe, the inhabitants of Sheffield can find no better object for their hero worship than a mischievous and ignorant pretender. We trust this is no symptom of a degeneration of our countrymen, but only a passing example of the truth of Carlyle's dictum, "That England is inhabited by thirty millions of people, mostly fools."

Both this meeting and its cause have several lessons even for wise and scientific men. They show that an epidemic, if not prevented by isolation in the first instance, may, in spite of all subsequent efforts, become an endemic plague, throwing the people of the affected district into panic terror, and making them the easy prey of quacks and charlatans of all kinds. They show, too, that without local or general acts for the compulsory notification of infectious disease, preventive measures are merely a delusion and a snare.

Leicester, with its explosive population and under an act for compulsory notification, stamps out each case of small-pox as it arises. Sheffield, partly protected, which refuses such a clause, becomes a very pest-house, injurious to its own inhabitants, their trade and life, and a source of danger to the whole, country.

Another lesson is the importance of instructing the people in the causation and course of disease by means of classes and lectures and private instruction, in order that they may be protected from such folly as the Sheffield Temperance Hall meeting. Let them learn the etiology and course of this and all kindred diseases, and they will not be prone to believe that what the wisest and most learned of our physicians, from Sydenham to Murchison, have declared to be impossible, an uneducated pretender from Leeds can accomplish with ease.

Let the public also learn from the action of our own body, from our private conduct and our public pretensions, that the days of empiricism and theoretical pathology are passed away—that we are not believers in the possibility of cure by vague, and indiscriminate administration of drugs. That in some few diseases there are specific remedies; that in others we can guide the patient safely through an illness, which we can no more check, or seek to check, than the skillful pilot quiets the raging storm, through which, however, he steers, his laboring ship to its desired haven.

Let us also insist, both publicly and in private, that no valuable discovery in healings has ever been made by the compounders of quack medicines, and that they are simply impostors, growing rich on the credulity of silly people. Let us also agitate for some such wise law as that of France, that the composition of every patent medicine shall be declared before it is permitted to be sold. As to Mr. Herring, if the corporation of Sheffield does not ignore his modest request to treat patients in the Fever Hospital, it should be granted on one condition, that, in case of failure, he submit himself to be publicly whipped at a cart's tail from the hospital to the Temperance Hall, as a detected impostor, a rogue, and a vagabond.

The thanks of the people of Shffield and of our profession are due to Sir William Leng, the editor of the *Sheffield Telegraph*, for the judicious method in which he has reported this meeting and exposed and ridiculed this nineteenth century repetition of the folly and ignorance of the Middle Ages.—*Brit. Med. Jour.* Feb. 18.

ABSTRACT OF LECTURE ON CINCHONA, COCA AND GUARANA

Dr. H. A. Rusby delivered, before the Alumni Association of the New York College of Pharmacy (*Phar Record*), an interesting lecture on the manner of cultivating and preparing for market the above-named drugs. He stated that at present, all the South American Cinchona bark, except an occasional bale, is the product of cultivated trees. We are indebted to some public spirited Englishmen and to the English Government, who successfully introduced the cultivation of the cinchona tree into some of the British Provinces, for our ample supply of quinine. The quality of bark from cultivated trees is much

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superior to that taken from wild trees. The doctor stated positively that there not is the slightest hopes of its sucessful culture in United Staes.

The subject of Coca was next taken up. Of the origin of this plant nothing is known. When the Spaniards first visited the country its cultivation had dated back beyound the oldest legends. The wild plants that had been encountered might have resulted from an escape from cultivation, as the speaker had himself found true in a number of cases. There are two very distinct varieties of coca, the Bolivian and the Peruvian. The latter has larger leaves and smaller fruit than the former. The Bolivian variety is very greatly preferred for the Indian's consumption, the Indians of Peru purchasing about one-third of the Bolivian crop. The region of its cultivation corresponds in general to that of the Cinchona, although it grows readily, but of inferior quality, to the lowest elevation.

Its cultivation differs materially from that of the cinchona. The seeds are germinated in the house, and the plants are transplanted to terraces. It lives and flourishes to the age of 40 years. It is a very tender and delicate shrub, and the pickings have to be very carefully performed. The doctor then dwelt on the question as to whether the Indian was mistaken in his opinion of the wonderful supporting properties of coca leavs. He reviewed the distinguished evidences which had been reaching us for 300 years going to prove that the effects of coca chewing were all that had been claimed, and added his own earnest testimony to this effect. This belief was then contrasted with the utter failure to obtain those effects in this country and Europe by eminent physiologists who had experimented with the drug. His own studies had clearly proven that this discrepancy was due to a change in the composition of the leaves, which set in immediately after they were gathered. Some little known volatile principle which the doctor had found in large quanity in the recent leaves disappeared from them with age, and it was to this substance that he attributed the stimulating and supporting effects of coca leaves as they are chewed by the natives. The position was proven by prominent physicians having obtained from finid preparations made upon the spot similar results to those that are attributed to coca chewing.

Taking up the third topic, guarana, an entirely different region was depicted from that which yields cinchona and coca. The latter is a mountain region, were the broken surface taxes to the utmost the engineer in the laying out of roads, and where the numerous falls and rapids render navigation of the streams all but impossible. The home of the guarana is upon the great forest covered plains of Brazil. Here the vegetation is even heavier than upon the mountains, but it presents itself upon the snrface, of the forest, more than 100 feet above the ground so that it is not so impressive. Below there are only the great tree trunks and the stems of immense vines, with innumerable pendant roots, which imbibe moisture from the damp atmosphere. A deathly silence prevails.

The rivers of this section are excessively narrow and deep, the breadth of a vessel being the only limit to its navigation of them. The lecturer had parted the vines from the mouth of a narrow stream which in this country would float only a common row-boat, and after traversing it for three days found in its depth of 15 or 18 feet.

Like the other two drugs, guarana is a cultivated plant, the chief source of its production being near the mouth of the Medeira River. It is a climbing vine of the maple family, and is cultivated upon poles, after the manner of hops. Its production its wholly in the hands of Indians, whose vigilance and patience alone can perform the delicate and tedious task of preparing it for the market.

The ripening of the seeds is shown by the opening of the buds. Immediately upon this, the fruit is gathered to prevent the inevitable loss which would result from its falling This fruit resembles the hickory nut. It is contained in a husk, which husk consists of three instead of four parts. From these the

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seeds are shelled out by hand as hickory nuts are. First they are washed free from a gummy substance, and the subjected to a roasting process of six hours duration, which loosens them from this fibrous shell, which is removed. Then they are placed in stacks and beaten. The best varieties of guarana are those in which the seeds have been finally broken, and whichcontain a small amount of water which has been added just sufficient to conserve the mass. It is kneaded by hand into a mass of the consistency of dough. I have been informed that the common belief in this country is that other materials are added to this mass by which it is adulterated. The fact is that other things are kneaded into a mass, only water enough being used to make them adhere. A large building is then utilized for the drying purpose. Upon the upper floors of this building this material is spread out and subjected to a slow fire of selected fuel, collected with a view of making no smoke, the object being to keep the temperature equable, maintaining at the same time sufficient heat. It is exposed in this may for a certain number of hours, when it is ready for the market. Great experience is necessary to carry on this process. This is the manner in which it is prepared in its own home. It is used there by the natives, a portion being grated off with a large file, and it is served in a glassful of cold water. Its effects are very refreshing, its excessive use deleterious. I will say it contains two or three times the quantity of the drug that coffee does, producing a happy effect on the nervous system, but if used in excess, bringing on trembling and a palsied condition of the limbs.

A CASE OF INTUSSUSCEPTION IN A CHILD TWENTY MONTHS OLD; LAPAROTOMY; RECOVERY

BY WILLIAM N. SWIFT, M.D., OF NEW BEDFORD.

I was called Monday, January 9, 1888, to see a male child, twenty months old He had never been very strong. About a year ago, had eczema of the chest and neck, but did well with local treatment and cod-liver oil. Last August, had a severe attack of entero-colitis, by which he was very much prostrated Since that time he had been well until the present illness.

I caw the patient about noon, January 9th. His mother said he had had a cold for a few days. She had given him macaroni for breakfast that was not very well cooked, and he evidently was suffering from gastric indigestion. I ordered a teaspoonful of the syr. of ipecac, and told the mother to give an enema of warm water if he did not get relief. About two o' clock, after taking two teaspoonfuls of the syr. of epecac, he vomited a short time after the enema was given. About eight ounces of water was injected, and then he was put on a chair, the hole of which was much too large for him, so that his hips went through and he rested on his back. In this position he was urged to strain as much as possible, and had a large, natural dejection. After the dejection he did not seem relieved, and the vomiting continued every two to four hours. The vomiting gradually decreased, and he slept somewhat.

Tuesday (January 10th) morning, he passed some blood, bright red in color, but no fecal matter. He had no vomiting, and began to take nourishment. Temperature normal and pulse very good. He was rather restless and looked badly. He passed blood several times during the day, but this ceased towards night. Passed flatus freely. There was no distention of bowels. During the night he was rather restless, but slept somewhat. There was no vomiting, and he took nourishment well.

In the morning he had several foul-smelling, reddish discharges from the bowels, with some tenesmus. Temperature 98°, pulse, 100, rather small and weak. His face was pinched and the extremities cold. He showed symptoms of shock. Examination by finger in the rectum showed a large, elastic tumor filling the whole rectum, and almost presenting at the anus. The surface of the mass was dark in color, rough, and looked almost gangrenous. I at once made a diagnosis of intussusception

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and called Dr. Charles D. Prescott in consultation. He agreed with me in the diagnosis, and we also agreed that laparotomy was the only chance for the child.

At eleven o'clock I operated, Drs. Prescott, George T. Hough, and Garny De N. Hough assisting. I made an incision in the median line about two inches in length, midway between the umbilicus and pubes. Some clear serum escaped from the peritoneal cavity. By inserting the finger I could easily feel the point of invagination, which was in the lower part of the descending colon, about two inches above the sigmoid flexure.

I did not have room enough to get hold of the gut to pull it up, so enlarged my incision downwards as far as possible, and then hooked my finger under the gut and pulled it forward Dr. Prescott found by rectal examination that the gut was entirely reduced.

Examination of the gut from above showed it to be free, and that the peritoneal coat was in good condition. The wound was closed with silk, and dressed with corrosive sublimate gauze. During the operation careful antiseptic precautions were used. Tee whole of the operation, including ether and washing, took a little less than an hour.

Before the operation the child showed symptoms of severe shock, but began to improve at once. The bowels moved at four o' clock in the afternoon, and continued regular after that time. There was no vomiting, and Mellin's food, with a gradually increasing amount of milk, was given for nourishment with brandy. The convalescence was complibated with a bronchitis, which on the seventh and eighth days, was very troublesome; but he improved,and is to-day perfectly well. The wound healed by first intention.

The points of interest in the case seem to me:

1. The cause, being an injection to move the bowels.

2. The apparent improvement in symptoms up to a certain point.

3. The importance of an early laparotomy-

(*Boston Med. and Surg. Jour.*)

NEW METHOD OF REDUCING DISLOCATION OF THE SHOULDER.—Dr. P. F. Abril inverts the usual procedure for reducing a dislocation downwards of the humerus, by fixing the bone and making the glenoid cavity descend on the humeral head. The patient is made to stand with a crutch in the axilla; the surgeon holds the hand of the affected side, and makes slight downward traction: the patient now lets his body down, as if he were going down on his knees, and by the pressure on the head of the humerus it is slipped into place. Abril claims that the method is simple, and easily and quickly done, not needing anesthesia to produce muscular relaxation; and no assistance is required.—*El Genio Hedico Quirurgico* Oct. 31, 1888..—*Jour. Am. Med Association.*

THE LOVES OF THE BACILLI, is the title of the following verses, by H. S. C., quoted by the "Lancet" from the "St. James Gazette";

Quoth Bacillus to Bacilla
(Surely everything has sex):
"It is quite enough to fill a
Soul with pride, to see the necks
Of these mighty men of Science
O'er the microscope bent low,
While beneath them in defiance
Spins the merry Vibrio.

"Proud am I to think, my Comma,
While the world rolls on its way,
Every fell disease springs from a
Fairy filament, they say.
Autocrats that tower Titanic
Have been known to bow to me;
Mighty potentates in panic
Disinfect at thought of thee.

"Rash would he be who should presage
That no germs behind us are;
We are part of that great message
Which outrings 'twixt earth and star.
What by thousands or by tens is
Multiplied, in vain they show;
Something lies beyond his lenses
Mortal man may never know!

"We are greater, my Bacilla,
Than all monarchs; for meseems
We need but exist to fill a
Strong man's brain with fever-dreams.
Such the thought my passion kindles,
O my microscopic bride:
Kiss me! although twenty Tyndalls
Have their eyes upon the slide!"

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REPORT ON PROGRESS.

DISEASES OF THE THROAT AND CHEST.

BY WILLIAM PORTER, M.D.

I. LEPROSY OF THE AIR PASSAGES.—Sir Walter Mackenzie.
II. INTUBATION VS. TRACHEOTOMY.
III. ANGINA PECTORIS OF SYPHILITIC ORIGIN.
IV. PREMONITORY SYMPTOMS OF PHTHISIS.

LEPROSY OF THE AIR PASSAGES.

The observations of this most industrious author are based on a larger number of cases than those of any of his predecessors have been, and decisively confirms the statements made by Moura-Bourouillou, Schrotter and Elsberg. Dr. Mackenzie's examinations of leprosy cases were made in Spain [Seville] Maderia [Funchall], Norway [Molde and Bergen], during his summer vacations, and afterward in Italy at the now famous San Remo.

In the reprint from the *Jour. of Laryngology* Oct. 1887 and Jan. 1888, the author states that whilst the throat symptoms are not in all cases absolutely distinctive, yet they often present sufficiently characteristic features to enable an expert to determine their nature without much hesitation.

While all of the cases of lepers in which the larynx was involved had well marked invasion of the disease elsewhere, the following tables will be of interest as giving the most complete description of the greatest number of cases yet published by any one investigator.

The presence of a case of leprosy in our own city makes the study of this dread disease all the more interesting.

At Seville the author found 29 male and 10 female lepers. Of these 9 males and 2 females had well marked throat symptoms. The following table shows the duration of the throat affection as compared with that of the general disease.

MALES.

	Age.	Duration of Disease.	Duration of Throat Affection.	Remarks.
1	34	.5*	2*	Ulcers over whole of pharynx. Uvula destroyed; sides of throat acutely inflamed.
2	35	8*	5*	Epiglottis so much enlarged that laryngoscopic examination was almost impossible.
3	47	8*	6*	Ulceration of uvula. Enlargement and ulceration of epiglottis. Ulceration of left arytenoid.
4	28	13*	2*	General thickening of orifice of larynx. Uvula enormously thickened and elongated.
5	33	9*	7†	Large ulcer in pharynx. Epiglottis enormously enlarged.
6	31	?	2*	Ulcers over whole of pharynx and pillars of fauces. Uvula destroyed. Tubercles on tongue. Dysphagia.
7	22	10*	10*	Uvula destroyed. Ulcer extending upward from it symmetrically. Epiglottis enlarged.
8	47	14*	10*	Uvula destroyed. Pharynx ulcerated on both sides. Epiglottis destroyed.
9	16	10*	6†	Uvula and epiglottis thickened.

FEMALES,

	Age.	Duration of Disease.	Duration of Throat Affection.	Remarks.
1	50	12*	?	Epiglottis greatly thickened.
2	26	9*	2*	

* Years. † Months.

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A year later Dr. Mackenzie visited Maderia and found eight patients.

MALES.

	Age.	Duration of Illness. Years.	Duration of Throat Ailment.	Remarks.
1	19	6	1*	Ulceration of vocal cords. General thickening of epiglottis and arytenoids, especially left.
2	28	14	†	Do. as above. One brother a leper. Father and mother and rest of family healthy.
3	17	10	?	Do., voice little affected.
4	24	6	?	Epiglottis thickened. Heredity remarkable. Two brothers affected and one half-sister; four brothers had died of the disease. Almost a vegetarian.

FEMALES.

	Age.	Duration of Malady. Years.	Duration of Throat Ailment.	Remarks.
1	22	9	3*	Uvula destroyed. Epiglottis and arytenoids thickened.
2	30	9	?	Uvula destroyed. Epiglottis and arytenoids thickened.
3	35	25	‡	Dyspnea, Father and brothers lepers. Intra-arytenoid fold thickened. Slight thickening of epiglottis.
4	12	3	?	General leprosy very slight, voice nasal. Half sister of male patient No. 4.

* Years. † Recent hoarseness. ‡ Many years.

In 1884 the hospital at Molde in Norway was visited and the following records made:

MALES.

	Age.	Remarks.
1	66	Slight swelling of arytenoids. A little swelling of vocal cords. Nothing characteristic.
2	54	Tubercles. Swelling of epiglottis—especially on dorsum. Tubercles on palate. Uvula gone, leaving thickened stump. Ulcers on pillars, especially left side. Swelling of ary-epiglottic folds and ventricular bands.
3	26	Tubercles on epiglottis and uvula. Father and mother leprous, Five brothers and sisters healthy.
4	24	Mucous membrane of mouth anemic and thickened. Uvula partly wasted. Tubercles at base. Thickening of epiglottis and arytenoid cartilages.
5	29	Uvula shortened, almost as if cut across. Septum nasi thickened posteriorly. Immense thickening of epiglottis. Uncle leprous.
6	57	Bad case. Horrible smell. Eyes gone. Anemia and atrophy of whole pharynx. Tubercles on tongue. Deep pocket between anterior and posterior pillars, with ulceration at bottom (left side). (Mucous membrane of posterior pillar much developed).

He saw only one woman at Molde; she had a large ulcer on the palate, the uvula was eaten away, and there was thickening round the upper laryngeal orifice.

A number of other cases are noted but these will suffice to show the main features of the larnygeal complications of leprosy. It will be noticed that enlargement or ulceration of the epiglottis is almost constantly present with thickening of the arytenoid cartilages.

The throat is seldom if ever affected in the macular or anesthetic form but in tubercular leprosy the throat is attacked sooner or later in nearly all cases.

We need not quote from that part of the essay which refers to the minute anatomy which has recently been so thoroughly elucidated by Masini of Genoa and Thin of London.

Dr. Mackenzie believes that the disease is always contagious but that owing to the extraordinary length of the incubation period, in many cases this feature has been masked. The fact that cases of leprosy are now found among Chinese who are now everywhere seen in America, and the fnrther fact that these people are so largely engaged in laundry work, furnish at least food for thought.

Intubation vs. Tracheotomy.

While favorable reports of intubation are still frequent, there are yet many who are unwilling to fully endorse all that is claimed for the new procedure.

In discussing this subject before the Academy of Medicine in Cincinnati last month the President, Dr. Ransohoff said he had seen a number of cases in which intubation was practiced. All proved fatal.

One of his friends had employed the measure seventeen or eighteen times with but one permanent success. In view of such diversified statements, it becomes necessary to ask a number of questions: Why is it that one man will report fifteen or sixteen cases with but one good result, while another will report twelve cases with seven recoveries? There are two methods of explanation—the one may possess more skill, but, as things go, we must

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assume that all have about the same amount of dexterity in handling instruments;secondly, and in all probability, they may consider cases of diphtheria from a different standpoint. For his own part, the speaker thought there could be no question but that intubation, like tracheotomy, is performed when there is really no great necessity. In Chicago, a gentleman, shortly after the introduction of intubation, reported 170 cases with remarkable success. When we consider such a number, the question naturally arises whether they were really cases of diphtheritic croup. We may take it for granted that he was largely called in consultation. Taking as correct the diagnosis of the attending physician, the tube was introduced, the child got well, and the case added to his list of recoveries. Of the cases observed by the speaker, in but one immediate relief was secured. In three or four immediately thereafter tracheotomy had to be performed. The process is not always just limited to the larynx. Another danger of intubation consists in the possibility of detaching a piece of membrane and thus producing an obstruction and instant death. Such cases have been reported. Any effort at swallowing, with the tube in position will cause a passage of a portion of the food into the trachea. Every one knows of the Schluck-pneumonia or swallowing pneumonia, which may in such cases be produced, and that may be the fatal condition referred to by a previous speaker. In tracheotomy there is no danger from starvation; in intubation there is danger of death from inanition. In tracheotomy difficulty of respiration is relieved and all difficulty in swallowing passes off in six to eight hours. It has been stated that after tracheotomy the tube needs careful watching. Many mishaps have occurred to intubation tubes, some having slipped down into the larynx, others coughed up and swallowed. We have to night reported sixty per cent. recoveries. Take ordinary cases of diphtheria without croupous complications. Do we find 60 per cent. recoveries? When the palate, tonsils and posterior nares are involved, with enlargement of glands, and pronounced septic process, can we expect 60 per cent. recoveries? The speaker believed not. He had upon a previous occasion expressed a view that he considered intubation a highly unsatisfactory procedure, and he had since then observed nothing to convince him that such a view was erroneous.

One of the great advantages of tracheotomy is that it permits the air to reach the lungs of the patient without having to pass over the diseased surfaces of the larynx and pharynx, while it also permits comparative rest of these parts. I believe that intubation is an admirable remedy for temporary result, and possibly a temporary bridge, is all that is sometimes needed, but for a typical case of laryngeal diptheria with every prospect of a severe, long continued fight, tracheotomy is certainly indicated.

Angina Pectoris of Syphilitic Origin.

In these days when angina pectoris is attracting so much attention the following addition to our literature will be read with interest.

In the *Annales de Dermatologie et de Syphilagraphie*, Dr. Hallopeau contributes an article on angina pectoris of syphilitic origin. Syphilis, according to the author, may give rise in its secondary and tertiary stages, to attacks of angina pectoris, and these attacks may present the classical type of this affection. At times the attacks are complicated with other troubles of innervation connected with a reflex excitation of the vaso-constrictor or of the vaso-dilator nerves, thus provoking abnormal sensations of cold or heat in one half of the body with shivering and hyperhidrosis, and may give rise to paresis by ischemia of the motor centres. These fits are attached to the development of specific neoplasms on the course of the cardiac plexus or in its immediate neighborhood,and they may be modified in their character under the evolution of the lesions, of their arrangement in the points primarily affected and of their extension to other branches of the sympathetic nerve. These attacks the

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author remarked, may be cured in a few days under the influence of the mercurial medication or of the iodide of potassium, and so thoroughly that they seldom or never return.

Premonitory Symptoms of Phthisis.

The *Med. Reg.*, Mar. 17, gives the following extract, from a recent work of M. Rene Serrand, who has made a special study of the first symptoms of phthisis.

"In patients doomed to pulmonary phthisis there always exist very clear and decided pharyngo-laryngeal signs, which precede for some time the pulmonary symptoms.

"These signs are three number:

"1. Pharyngeal anemia. The pharynx is pale, white, discolored, in place of having its normal color.

"2. Impaired action of the inferior vocal chords through atony of the constrictors.

"3. Local congestion of the arytenoid and inter-arytenoid mucous membrane, manifesting itself in swelling and a cherry-red inflammation of that locality.

"These three signs may exist simultaneously or alone. The presence of even one is a strong indication of approaching pulmonary tuberculosis; whenever a physician finds all three present, this prognosis is certain.

"Pharyngeal anemia, impairment of the vocal cords, and congestion of the arytenoid region, symptoms which have nothing in common with laryngeal phthisis, are the heralds of pulmonary consumption. The physician who knows how to read the larynx of his patient can avoid a great many missteps, for warned of the danger ahead, he can institute a prophylactic treatment, and arrest phthisis in its first stage."

ORIGINAL ARTICLES.

VENTILATION.

BY ELIOTT E. FURNEY, M. D.

The science of ventilation, as applied to dwellings aud apartments occupied by individuals and assemblies, is a branch that has developed with but little cultivation. It is a science of which every one imagines he has an intuitive and thorough understanding. There are none who think they cannot tell exactly why ventilation is necessary, and of numerous and simple methods for its thorough accomplishment, and yet a little consideration of the subject may not be amiss, though it may not lead to any very brilliant discovery.

Animal life, for purposes of respiration, requires oxygen, uncombined oxygen, generally diluted with some non-irritating gas, the proportion to which we have grown accustomed being about 21 per cent of oxygen and 79 per cent nitrogen; that is, normally healthy persons are accustomed to this proportion and to this mixture.

However, by a process of training, or by slow changes, a person may become accustomed to different proportions and different mixtures, the quantity of oxygen being either increased or diminished, and a substitute made for the nitrogen in a greater or lesser degree by some other non-irritating gas.

It is surprising how people may accustom themselves to great variations from this general standard without the development of disease, or even the slightest discomfort; while if the change from the general or normal to the artificial, or from the artificial to the normal, be made suddenly, alarming disease or death may, and some symptoms of serious disturbance, will always result.

For example, a person in excellent health, accustomed to the open air, goes to the theatre, where the oxygen is slowly reduced, and its place taken by carbonic acid. Little or no notice is taken of the change, and no symptoms of evil appear, except, perhaps, a slight drowsiness; but after the play is over, the person suddenly meets the fresh air on leaving the theatre, and takes a cold of greater or less severity, and, perhaps, a pneumonia. Had the change been made slowly, no discomfort would have been felt. Therefore, the fresh air was as much the cause of the disease as the foul air.

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There are numerous diseases resulting from the inhalation of effete matter, low organisms and irritating gases.

The need, then, for ventilation is, first, to prevent becoming accustomed to an abnormal atmosphere; and, second, to disperse disease producing agents, the presence of which alone makes the air impure or unfit for human respiration.

Before discussing methods for ventilation, it is important to state something of the physical properties of the air, irritating gases and noxious germs, and of the forces governing their admixture.

Gases become mixed when not separated by absolutely impervious partitions, by the processes known as diffusion and circulation. Fine particles of fluid or solid matter, or anything non-gaseous but floating in a gas, are mixed only by the circulation of the supporting gas. The rate of admixture of gases is, therefore, greater than that of the non-gaseous.

The rate of diffusion of gases varies inversely as the square roots of their densities; but this by itself serves no purpose for calculation so long as conditions to produce circulation are afforded, and nearly every habitable room does at present provide such conditions, the result being that admixture is practically instantaneous, as may be shown by the shortness of time that elapses between the evaporation of an essential oil, like peppermint, in one part of a room, and the presence of its distinguishing odor in all parts most remote. If any of the ordinary crude methods of ventilation, like the hot air register and open flues or windows are used, the time will be very short indeed.

A room is comfortably warmed when it has a temperature of 70° F. The temperature of the exhaled breath is about 98° F.; there is, therefore at the moment of exhalation a difference between the weight of the volume exhaled (20 cubic inches) and of an equal volume of surrounding air, of about one third grain, due to the difference in temperature; and though the increased quantity of carbonic acid and aqueous vapor partially compensates for this difference, the difference still remaining is sufficient to give the exhaled air a velocity upward, of about one foot per second for the first second, and a decreasing velocity until the top of the room is reached, from which it can only return by diffusion or forced circulation, such as is caused by open doors or windows, the reduction of its temperature by contact with cold walls, or by some mechanical appliance. The return by the peculiar process known as diffusion will be aided by the greater specific gravity of the carbonic acid which, at the same temperature as the surrounding air, would, by virtue of its gravity, tend to descend.

If there is no circulation in the room the admixture by diffusion alone we know is very slow, particularly between such gases as the mixed carbonic acid and air, with air itself, though there is a lack of experiment for accurately determining the rate.

But anything non-gaseous, such as the germs of low organisms, epithelial scales, etc., since they are unaffected by the law of diffusion, would rise with the warm breath exhaled with them, and fall as they became cooled; but otherwise they could not become mixed with the surrounding air.

Now, except in laboratories and some manufacturing establishments, the only gases that are likely to appear in a quantity exceeding that found in free air, are those produced by respiration and the combustion of gas for illuminating and heating purposes, of which carbonic acid is the principal one, the non-gaseous and effete matters exhaled from the lungs, the particles of carbon, and the irritating gases produced by the combustion of illuminating gas being very small in quantity as compared with it.

The carbonic acid is not in itself a poison, but the quantity produced by these processes indicates the amount of oxygen taken from the air, and the presence of a certain proportional amount of the other products that are essentially poisonous; and so uniformly is the degree of deterioration and poisonous quality proportioned to the amount of carbonic acid present, that that gas may serve as the

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gauge by which to measure the vitiation of the air.

According to Dr. Parks, when the carbonic acid present is equal to .0006 of the volume of the air, the noxious elements present are at the maximum of harmless toleration, and are just noticeable to the human sense of smell.

The carbonic acid present in the external air, is about .0004 of its volume; therefore the amount that may be added by the process of respiration, etc., is but .0002.

Each respiration adds about .05 of the volume exhaled. Assuming twenty respirations per minute, and 14.4 cubic feet per hour, as the amount respired by one individual; we have the necessary data for calculating the amount of ventilation required according to the different methods pursued.

If the assumption is made, as is usual, that admixture is instantaneous, and therefore that ventilation is only for the purpose of dilution, and the size of the room is neglected, then it is plain that 250 times as much air must be introduced by ventilation as is respired, or about 3600 cubic feet per hour for each individual, since the .05 exhaled is 250 times greater than the .0002 that causes the maximum of harmless toleration.

Although the method of ventilation by dilution has been the one usually employed, the older authors were quite at variance as to the amount recommended, Vierordt recommending 2½ cubic feet per minute; Dr. Reid, 10 cubic feet; Dr. Arnott 20 cubic feet, while Dr. Hammond recommends 40 cubic feet; and Dr. Parks 60, as I have before stated.

It is generally accepted, that a large room is more easily ventilated than a small one, and if 3600 cubic feet of air are to be introduced per hour, for each individual present, it would certainly be easier to avoid draughts in a large room than in a small one, although it is also true that the circulation is more free in a large room. The circulation however really depends in the main upon the character and exposure upon the walls, and their chilling effects upon the inclosed air.

To obtain a clearer view of the relations between the several variables, the following equations have been developed: first assuming that a room having a volume of v. cubic feet, filled with an atmosphere having in each cubic foot a volume of impurity represented by a, and from this, that there be removed a very small quantity which is replaced by an equal volume of external air; that admixture is instantaneous; then by making numerous repetitions of this act, the inclosed air will be made to approach in purity that of the external air, and to any degree short of perfection.

The condition of the internal air after each change if expressed algebraically, will form a geometrical series thus: Making

v=Volume of the room;
a=Initial impurity;
q=Quantity of air removed and replacad at each change;
e=Impurity of external air;
n=Number of changes;
l=Standard of purity required;

$$c = \frac{e\,q}{v+q} \text{ and } b = \frac{v}{v+q}$$

Before change.	After 1st change.	After 2d change.	After 3d change.
a,	$ab+c$,	ab^2+bc+c,	$ab^3+b^2c+bc+c$.

Then the last term of the series, or the standard of purity to which it is wished to arrive, will be $l = ab^{n-1} + \frac{cb^{n-1}-c}{b-1}$ substituting for c and b the equation reduces to $\frac{l-e}{a-e} = \left\{\frac{v}{v+q}\right\}^{n-1}$ which being solved for n, shows.....

$$n = \frac{\log\left\{\frac{l-e}{a-e}\right\}}{\log\left\{\frac{v}{v+q}\right\}} + 1$$

By substituting numerical values in this equation, it is easy to find how long a time would be required to purify the air in a room of given size, or how much external air would be required in a given time, etc., thus:

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Assuming l=.0006 allowable impurity;
" e=.0004 impurity of external air;
" a=.05 impurity of air after having once passed through the lungs; V=1000 cubic feet, the volume of the room; q=1 cubic foot, the volume of each change:

$$\text{Then } n = \frac{\log\left\{\frac{.0006-.0004}{.05-.0004}\right\}}{\log\left\{\frac{1000.}{1001}\right\}}+1 = 6227$$

changes of one cubic foot each, to bring the air to the standard of purity; at 60 cubic feet per min. it would require 104 minutes or 1.73 hours to accomplish the result sought.

Had the volume of the room been 10 cubic feet, and other things remained the same, only 65 cubic feet would have been required.

Now, if we make the volume of impurity of air once respired = 05 = f and the volume of one respiration = V. = .012 cubic foot, we may state the following conditions:

Having a room filled with an atmosphere that is at the standard of purity, or of the maximum of allowable impurity, into which a man makes one expiration, that by its instant admixture fouls the entire atmosphere of the room, by an amount represented by $\frac{fv}{v}$ which makes the entire impurity to be represented by, $\frac{fv}{v}+l$, and substituting this quantity for a in the previous equation, the quantity of air required for each respiration may be determined thus:

$$\frac{l-e}{\frac{fv}{v}+l-e} = \left\{\frac{v}{v+g}\right\}^{n-1} \text{ which reduces to}$$

$$\left\{1+\frac{q}{v}\right\}^{n-1} \text{ and by substituting}$$

$$1+\frac{fv}{v(l-e)}$$

numerical values as befor except that q is assured as .0006 cubic feet or approximately 1 cubic inch

$$n = \frac{\log\left\{1+\frac{3}{v}\right\}}{\log\left\{1+\frac{.0006}{v}\right\}}+1$$

Assuming different values for v the corresponding values for n are found as shown in the following table; which values multiplied by 0.72, gives the quantity in cubic.feet, that will be required per hour to keep the room at the standard of purity; only one person being present.

v.	n.	Cubic feet per hour.
$^1/_{1000}$	17	12.24
$^1/_{100}$	99	71.28
$^1/_{10}$	575	414.
$\frac{1}{2}$	1624	1169.
1	2312	1664.
2	3055	2199.
3	3465	2495.
4	3731	2686.
10	4376	3150.
100	4930	3549.
1000	5999	3599.
00	6000	3600.

I think therefore, it may be said that a small room may be as economically ventilated as a large one and often much more so; even by the dilution method.

Twelve cubic feet of air weighs approx., one pound; and the specific heat of air at a uniform pressure is about 0.238 or 25% of water. Therefore approx. 50 cubic feet of air will require the same amount of heat to raise it one degree that is required to raise one pound of water the same amount.

One pound of coal, may be assumed as capable of raising 10,000 lb of water one degree Fahrenheit, or 500,000 cubic feet of air the same amount. For the 3,600 cubic feet required by each individual per hour, to be raised from 0° to 70°, which would be equivalent to 252,000 cubic feet for one degree there would be required $\frac{1}{2}$ pound of coal per hour, even by comparatively economical methods of heating; and about eight times as much,

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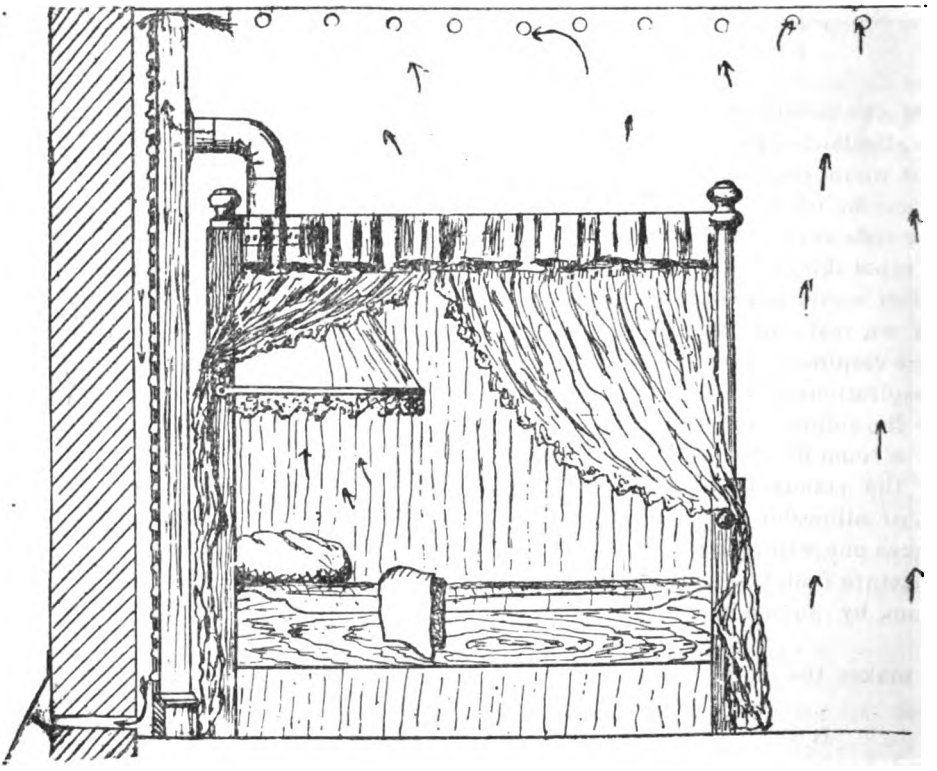
for each gas jet, that may be burning in the room.

Of course, if the temperature outside is higher, say 35°, then the amount would be only half as much, and so in directly in proportion to the difference in temperatures.

This only provides for raising the air introduced by ventilation to the internal temperature, and does not provide for radiation from the walls, and therefore, represents the amount that would be required in addition to that necessary to maintain the heat of the room without ventilation.

As has been stated before, the principal cause of the practically instantaneous admixture, is the rapid circulation that exists in rooms surrounded by the ordinary walls and windows. If this circulation can be prevented, and in its place we can substitute a slow current rising equally over the whole area of the room, each person occupying the room would be provided not with an atmosphere of .0006 impurity, but with as pure air as is found out of doors; and less than 2½ cubic feet per minute per individual, would be all the ventilation required.

And this condition may be secured in cold weather, while artificial warming is necessary; and it is unnecessary to consider the economy at any other time; since if it is warm enough to allow of open doors and windows, ampel ventilation without danger from draughts is



easily secured; but when the windows must be closed, let there be a double sash; let the partition walls be double; the outer walls furred; and numerous openings be made along the upper border of the room into the space between walls, so that the foul and heated air may escape. As it is chilled by contact with the outer wall, it will descend within the space, keeping the inner wall warm, and furnishing the heat for radiation by the outer walls.

Opening at the bottom of thespace,through

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the outer wall, should be made and properly guarded by shields to prevent the wind from exerting a pressure through them. This will allow of its final escape; while provision for the supply of fresh warm air should be made through registers in the floor, in places sufficiently numerous and well selected, to secure the result mentioned.

This method would secure an atmosphere for respiration, equal in purity to the external air, in rooms occupied by any number of people on one floor.

For theatres etc., the floors of the balconies should also be provided with registers, supplying fresh air, the same as the main floor.

For sleeping rooms, it happily is possible to secure a perfect ventilation even in the poorest house.

Now a small room with walls that neither abstract nor impart heat; and therefore a room in which the circulation can be under perfect control, affords the ideal room for easy and perfect ventilation.

Enclose the bed above and on all sides with curtains, of not too heavy material.

Have attached to the head-board a hood, like the ordinary awnings over windows, with its lower border from twelve to eighteen inches above the shoulder of the one occupying the bed. Cut through the head-board or otherwise make provision for the attachment of a stove pipe or some equivalent, which shall open into the space covered by this hood, and from thence lead to the chimney.

By means of a damper in the pipe, the amount of draught may be easily regulated; and a perfect ventilation secured.

The heated breath, together with such warm air as escapes from beneath the blankets immediately rises and is conveyed away; its place being supplied by fresh air filtered through the curtains covering the bed. With this arrangement the very minimum of air will be required; and the most perfect ventilation secured.

In hospitals a chimney would not of course be necessary for every couch.

A long horizontal flue running along the side of the ward and opening into a chimney or vertical flue, through which a draught is secured by heat or by mechanical means would be the more suitable.

The connection between each couch and the horizontal flue may be made ornamental, or at least so as not to offend the sight.

For hospitals, where foul-smelling diseases are often encountered, and where even 120 cubic feet of fresh air per minute, per individual, does not suffice to remove the foul odor, or to properly dilute the disease bearing air, this method provides relief.

The principle is precisely the same as the one that preserves the dwelling from being filled with smoke like the Indian wigwam.

Are the methods practical as they have been suggested?

Does the increased comfort and superior quality of the air secured by these methods warrant a trial in some hospital?

2905 Chestnut St.

THREE CASES OF NERVE INJURY.—RECOVERY WITH OPERATION.

BY H. H. FROTHINGHAM, M. D.

Read before the Chicago Medical Society, March 11, 1888.]

CASE I.—A young man, twenty years of age, who had received a razor cut across the anterior surface of the arm, about four inches above the elbow joint. Upon examination it was found that the cut extended deeply to the humerus, dividing the brachialis artery, median nerve, and partially severing the biceps and brachialis anticus muscles.

Under ether the artery was ligated at both ends, the muscles sutured with catgut and the wound closed. An antiseptic dressing was applied, and over this a plaster cast fixing the arm in a flexed position, in order to remove all strain from the muscle sutures. Twenty-four hours later the operator, becoming uneasy about the divided nerve reopened the wound and sutured the divided sheath thus approximating the nerve ends, the material used for suture being fine catgut and the point so taken that the portion of the stitch contained

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within the nerve sheath lay parallel to the nerve fibres. A bone drainage tube was introduced at the inner angle of the wound, which was closed and dressed as before.

For about twenty-four hours the patient complained of tingling in the first three fingers of the hand, after which time there was no discomfort. Sensation returned rapidly to the area supplied by the median nerve, being apparently normal at the end of five days. Flexion of the fingers and thumb and of the hand upon the forearm was possible after four days, and increased rapidly in extent.

The wound healed throughout by first intention and was entirely well in twelve days. At this time, sensation in the hand and forearm appeared normal. Flexion of the wrist and fingers was easily accomplished, but the grasp of the hand was weak. Control over the muscles increased, and at the end of three weeks there was apparently normal innervation of the hand and forearm.

Case II.—Male, aged 30. Injury. A razor cut across the forearm about three inches above the wrist, severing the radial and ulnar arteries, median and ulnar nerves, and tendons of the flexor sublimis digitorum, carpi radialis, carpi ulnaris and palmaris longus. A compress was found placed over the forearm above the wound and drawn so tightly as to control hemorrhage. The wound had been filled with Monsel's solution and the skin incision stitched with superficial sutures of fine silk, leaving the ends of each thread a couple of inches in length. To clean up this mess took considerable time, and involved the loss of some blood. After thorough cleansing, the arteries were tied above and below, the nerves sutured as in case 1, and the severed tendons identified, the ends of each being then sutured with juniper catgut. A catgut drain was placed deeply through the wound, the skin was sutured, a dressing applied and the arm bound upon a Levis tin splint commonly used for fractured radius. Circulation was feeble and the hand cold for two days when the natural color and warmth were restored. At this time sensation in the palmar surface of all the fingers and thumb was possible but slight. Further examination into nerve condition was impossible at this time on account of the severed tendons.

Eight days after the injury the wound was entirely healed. Flexion, abduction and adduction of the thumb were possible, showing a return of function at least in the median nerve. Sensation in the hand was normal.

In four weeks the splint was removed and careful exercise advised. The patient had absolutely no pain except a numb feeling in the hand lasting only the first two days and due probably to lack of blood supply.

Case III.—Is that of a lady aged about 35 years, who sustained a fracture of the right humerus by a fall upon the elbow. The fracture was situated just below the insertion of the deltoid muscle, was oblique, and the displacement extreme. The patient complained bitterly of pain in the forearm and hand, which was not relieved by reduction of the fragments of bone. Morphine in large doses was necessary in order that any sleep might be obtained. Two days later the pain was somewhat diminished and was referred by the patient to the area of distribution of the musculo-spiral nerve below the elbow. Five days after the injury motion of the wrist and fingers was seen to be impaired. Seven days later the extensors and supinators of the hand and forearm were found to be completely paralysed and there was edema of the back of the hand. One month after injury the condition was as follows: There was strong bony union of the fracture, there was cutaneous anesthesia of the back of the hand with edema and glazed skin, complete paralysis of extensors and supinator muscles.

Under a diagnosis of compression of the nerve an operation was suggested to the patient, who demurred. Faradism as a next resort, to exercise the muscles, was advised. About this time the patient left the city and placed herself under the care of a specialist who applied both galvanic and faradic currents to the arm several times a week but without improvement.

Two months later the lady returned unimproved and ready for any measures that

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promised relief. Accordingly, the nerve was cut down upon and found just as it reached the front of internal intermuscular septum; from this point it was traced backward through what had been the musculo-spiral groove but now corresponded to the line of fracture and was filled with callus, against which the nerve was found compressed by a band of cicatricial tissue about an inch in width and one-fourth of an inch thick. This cicatrix was the result of laceration of soft parts, dependent upon the extreme displacement of fragments of fractured bone. The nerve was not caught in bony callus, but was found free in its sheath, though diminished to about one-third of its normal size and tinted a yellowish brown at the point of constriction, this tint shading off into light yellow below, and clear white above.

The cicatrix was excised and the cut triceps muscle united by catgut sutures, bone drainage introduced and the wound closed. The incision healed by first intention. Within twenty-four hours after operation acute pain appeared in the hand and forearm but gradually subsided, lasting perhaps ten days. Two weeks afterwards very slight extension of the wrist could be accomplished, sensation having returned nearly to normal. Improvement from this time on was constant, and twelve weeks after operation the patient had resumed her former occupation, that of fancy embroidery, requiring a high degree of skill in the use of fingers, and was apparently as skilful as ever. At the present date the hand and arm seem perfectly normal with the exception of the scar left by the operation.

The points of greatest interest to me are, briefly:

In case I, primary union of nerve, though the severed ends were left for twenty-four hours before being approximated.

In case II, primary union and early recovery, though circulation in the hand was not fully re-established for two days.

In case III, after twelve weeks entire loss of function the nerve showed unmistakable signs of recovery within two weeks from date of operation, and in ten weeks more had entirely recovered.

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SATURDAY, APRIL 7, 1888.

ANNOUNCEMENT.

We again take pleasure in referring to the 20,000 extra issue of the REVIEW this week. In this large edition we present to our regular subscribers a variety of matter which we trust will be of interest to them. We reach the leading men in all the states around us—the leading men everywhere are readers of the live medical journal.

To such as receive this number of the REVIEW who are not already subscribers, we say: "Come with us and we will do you good." We claim to be the representative journal of the Mississippi Valley. We propose to spare no effort to make this journal of great value to you. The columns are open to you for contributions as well as the subscription list.

TECHNIQUE OF MULTIPLE AMPUTATION.

In an interesting paper read before the College of Physicians of Philadelphia, Dr. John Ashhurt Jr. roported a case of syncronous multiple amputation, in which he had amputated the right thigh, left lower leg and the right forearm. The patient had no bad symptoms and made a rapid recovery.

Dr. Ashhurst gave the following important points in regard to the technique of such operations.

"In the first place it is very important that the time occupied by the operations should be brief; that the operations should be done sys-

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tematically, so as to keep the patient under the anesthetic as short a time as possible. The next point, perhaps of even more importance, is to keep up the temperature of the patient during the operation. I have been led to think that this is, perhaps, of more importance than anything else. Of course, loss of blood must be scrupulously guarded against, and loss of blood directly causes a lowering of temperature. In this case, hot cans were kept around the patient during the entire operation and, in order to save time, I operated systematically, the tourniquet and Esmarch bandage being both employed to prevent any loss of blood. I began with the most serious injury, and this is, I think, a point of importance. It may happen that, after the removal of one limb, it will be found that further operation must be postponed on account of the patient's condition, and then it is, of course, better to leave him with less severe injuries. In this case, I began with the thigh. After amputating the limb, I secured the main vessels, which were readily found. I attempted to tie the arteries with catgut, but as the ligatures broke I substituded silk, and, in order to save time, left both ends uncut. I next amputated the right leg, securing the vessels in the same manner, and then passed to the forearm. I then came back to the right thigh, screwed up the tourniquet and removed the Esmarch bandage, and secured all the vessels that required ligature, then passing to the other limbs in the same order as before. After the vessels had been secured in each case; a towel dipped in a hot antiseptic solution was placed between the flaps. The wounds were then dressed in the same ordor, and in this way the operation was completed in a comparatively short time.

The points which I have mentioned I believe to be of great importance, and I think that much of the disappointment of surgeons from these operations is due to a want of attention to these matters.

I should also say that. in order to preserve the bodily heat, I did not use irrigation during the amputations. I think that this often seriously reduces the temperature; and even in comparatively slight operations where it has been used, I have seen the temperature fall to 97° F., and even 95°. I think that in any grave case it is better to omit it and to rely upon washing with hot antiseptic solutions before and after the operation. Also, the packing of wet towels around the seat of operation, as is very commonly done, tends to depress the temperature, and in grave cases should be omitted.

I think that it is to an observance of these precautions that I have owed success in this case, and in many other serious operations of various character."

Certainly nothing in surgery is more universally known than that reduction of the heat of the body below the normal standard is attended by a depression of vital force, and yet how very common it is among both physicians and surgeons to depend upon stimulants administered internally or hypodermically to counteract this. The fact that such stimulation must necessarily be followed by sedation is often overlooked. A "good drink of whisky" throws the blood to the surface where the cooler atmosphere can abstract heat. Caloric in the human body is not different from that found elsewhere, and, we have no more efficient and rapid method of supplying a lack of it in the body, than by applying hot bottles, hot water bags, hot bricks and the like to the surface. The use of hot antiseptic solutions, before, during or after the operation does net lower the temperature while they are being applied, but unless the part be made thoroughly dry immediately after the application is discontinued, evaporation will abstract heat very rapidly from it.

While the cut surfaces are being exposed to the air to check capillary hemorrhage (a method used by many surgeons), the patient is often left lying on the operating table with very little covering over his body.

Apex Expansion in Pulmonary Consumption.

Correct chest exercise is one of the best

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preventatives of phthisis, and one of the most potent remedies even when the disease is established. If a small portion of the effort made in trying to discuss a "proper climate for consumption," were given to the study of chest development, it would prove renumerative to many who are hoping to find in far off countries what is ever within their reach.

The average man, according to Prof. Mosso, has 25 per cent more lung capacity than is actually needed at the sea level. The base of the lung expands more readily than the apex, for several reasons which are familiar to all. The apex being but little expanded, comparatively, has diminished circulation, and in early stages of catarrhal phthisis, and of broncho-pneumonia there is a blocking up of the air cells, and the retention of epithelial scales, mucus and debris. Aside from the constitutional conditions, this retention acts as a local irritant, and still further aids in determining local disease.

For many years I have believed that if proper methods were used, to induce increased apex expansion, normal conditions at the apex might often be restored. If this be in any degree true, it is to a large degree important, for we know that the most of the chronic pulmonary inflammations begin in the lung summit.

In a recent paper Dr. Mays before the Philadelphia County Medical Society, discusses this subject at length, and has done better service than can now be estimated, for certain it is, that this powerful factor in the treatment of phthisis, has been largely overlooked.

One of the easiest and best ways to attain full expansion of the apices, is to have the patient take a full inspiration, with the arms extended forward horizontally, the palms of the hands touching. If while the air is retained the arms will be slowly carried, in the same plane as far backward as possible, one can almost feel the air rushing into the top of the lung. When the patient is no longer able to hold his breath, the arms should be dropped and full expiration made.

By conducting this simple exercise slowly, and repeating it a dozen times night and morning a marked difference will sometimes be seen in flat and sunken chests in a month.

In the early stages of phthisis, I would thus class the six most important points to which attention must be given. 1. Nutrition; 2. Special chest exercise; 3. Limitation of waste, as night-sweats, profuse expectoration, diarrhea and pyrexia; 4. Proper clothing; 5. Rest as needed; 6. Sufficient general exercise.

If these conditions be maintained a comfortable home is more to be desired by the consumptive than most health resorts. There is great advantage in a good climate, and in change of scene and food, but these are not all, nor even most important in many instances. He who starts out to find one missing condition of health sometimes leaves ninety and nine behind him.

WILLIAM PORTER.

LET US HELP THOSE WHO SERVE THE PROFESSION WELL.

The medical profession of St. Louis has not forgotten that it is under great obligation to one man, an occupant of a public office, for service rendered. For years the physicians of St. Louis endeavored to secure a just recognition from the ruling powers but without avail. They occupied the anomalous position of having their sanitary department under the control of a layman. After each change of administration an effort was made to secure right and justice, but invariably the result was *nil.* In may 1887, the profession felt that its opportunity had arrived.

The city was fortunate in the possession of a chief executive officer, who while being full of push, energy, brains and character, was withall a thoughtful, cultivated student of affairs, and ready to decide a question upon its merits without reference to the wishes of cliques of demagogues and ward bummers. At the period above mentioned the time had arrived for the making of city appointments, David R. Francis had been mayor two years and had conducted himself so well in his

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high office, had made such a good record as to impress all classes with the feeling that their interests were safe, that the appointing power was in good hands.

The physicians of St. Louis, acting upon the thought that the opportunity had come for the presentation of their wishes, took united action, and respectfully petitioned Mr. Francis to appoint one of their members as Health Commisioner.

Instead of ignoring them and catering to the politicians and unwashed whoopers-up and hoodlums of the city as his predecessors had invariably done, he gave respectful consideration.

His keen perception and discrete regard for right promptly determined him to accede to the demands of those best qualified to know the sanitary necessities of the city, and for the first time since the creation of the office years before, a medical man became by the grace of mayor Francis, Health Commissioner of the city of St. Louis.

Mr. Francis has given St. Louis, so good and cheap an administration that on every hand we hear words of praise, and the expression of a determination to promote him at the next election if possible, to the more exalted position of chief executive of the great state of Missouri.

We have nothing to say regarding the matter from a political stand-point, but we feel sure we express the sentiment of the medical profession of St. Louis without regard to party when we say, that he deserves all that he has achieved, or may achieve in the way of position or preferment; that medical men everywhere are under profound obligation to him for deferring to them rather than the urban riff-raff around and about him: that the medical profession of the state should feel a personal interest in him and see to it that their influence be properly directed during the next few months, feeling safe in the assurance that with David R. Francis as governor, medical men and sanitary interests will not be ignored, and the state will be possessed of a "health board" with an existence in fact as well as in name; which will not have to "work for nothing and board itself."

It is but a few years since Missouri's mascot "Our Dave" came to St. Louis a poor boy from the country districts of Kentucky, but with a good stock of brains, brawn, magnetic vim and a will to work and win, he stands to-day the peer of any man—a typical representative of the new St. Louis, "Grand Old Missouri" and the whirling West.

EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

It is surprising that so many of our Medical Colleges pay so little attention to the department of pediatrics.

It is a fact which cannot be questioned that the young and tender graduate in medicine is as a rule almost devoid of any training or knowledge which would properly equip him for the safe handling of sick children and yet his sphere of action is at first confined almost entirely to the lower and freely procreating class of the community, and he must of necessity be called upon to treat a very large number of the infantile class.

Habits of close observation and a natural love for the *little ones* and a careful attention to *little things* are essential to success in this department of work.

It is astonishing how the interest of a doctor becomes aroused in this field of practice after he becomes a father.

I doubt if there be a childless delver in the Pediatric vineyard.

* * *

There are many pleasant things in this life, such as paying debts, renewing old acquaintanceship, meeting of friends long parted, awakening on a summer's morning with the consciousness of being in love, domestic quietude after an over-plus of company, the cheery babble of children, a long earnest and remunerative day's toil followed by honest restful rejuvenative sleep, but the WEEKLY MEDICAL REVIEW is pleased and happy in the knowledge of the fact that it is "booming"

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and assures its friends that every prospect pleases and not even *man* is vile.

* * *

It has been stated that Spellman has found the tubercle bacillus in flies. He caught it "on the fly" so to speak. Were one rash enough to assert that it is possible the little insect inoculated itself from too freely mingling with the sputa of consumptive patients, would any one dis-"sputa" the proposition?

* * *

The following from the *Western Druggist* is worthy of all commendation:

"From a humane and consistent point of view, taxes of any kind levied upon articles of necessity have always been considered unjust. As the needy poor outnumber the well-to-do, to say nothing of the independently rich, in the ratio of 19 to 1, the question involved within the scope of the query is one which invites the earnest attention of every man who is kindly disposed toward the sick and distressed. Statistics conclusively prove that the proportion of sick among the poor because of exposure, lack of food, and improper care, is much greater than obtains in the middle and higher classes. Then, for the sake of simple and wholesome charity, such articles as are used solely or mainly for medicinal purposes should by all means be placed on the free list.

* * *

In the address of the retiring president of the St. Louis Obstetrical Society, Dr. Walter Coles upon "The Legitimate Scope of Gynecology" appear many good points in support of that department of work.

In referring to recent criticisms upon gynecology made by the two eminent Neurologists Drs. Ludwig Bremer and C. H. Hughes, he mildly scores them comparing their strictures to the "pot calling the kettle black," and further says:

"It is to be regretted that such worthy gentlemen as the two to whom I have alluded, should have been led into extravagant and derisive criticism of a large class of their brethren in the profession. Their's is a line of argument however, which we do not care to pursue. Gynecology, while it lays no claim to infallibility, can well afford to compare practical results with any other special branch of medicine or surgery. No doubt many women have been examined, whose generative organs proved to be healthy. But in no other way, perhaps, could this fact be established. Doubtless ovaries have been excised without proper warrant, but it is incredible that such things are done by the "generality of gynecologists," from so sordid a motive as pecuniary gain. It is more charitable, and I believe more just, to attribute such mistakes to errors of judgement. As compared with base motives, I would prefer even to plead ignorance, such ignorance as sometimes condemns a limb to useless sacrifice, or subjects a patient to the painful routine of faradization for "hyperemia of the brain," when all he needs is to throw the physic to the dogs and go a-fishing. Such blunders as these, do not by any means tarnish the established principles of surgery or of neurology. They simply go to show that men are fallible,—especially such as cultivate a habit of looking at pathological phenomena from a one-sided stand-point, particularly with those who pursue special studies at college and in early life, to the neglect of the broader principles of general pathology."

The paper is a good one and closes as follows:—"The pathological orbit of the gynecologist and general practitioner must frequently intersect that of the neurologist, dermatologist, laryngologist and others. We should, therefore, dwell together in harmony, and if we would more frequently come together, discussing questions of mutual interest and consult each other, we would all grow in brotherly love, as well as in the depth and breadth of our practical and scientific attainments."

* * *

I remember some years ago my friend and former teacher Dr. Boisliniere Sr., recommending (while seeing a case in consultation with me) the use of Batley's sedative (an English preparation of opium) in place of landaum in similar doses, particularly if given per rectum, as being less irritating and less

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liable to be followed by subsequent depression.

The suggestion was a valuable one.

* * *

Edward Heron-Allen the hyphenated author of that strangely constructed story, [By the way the literary world is being filled with odd presentations of the horrid and the *outre* such as "She." "King Solomons Mines." "The Strange Case of Dr. Jekyl and Mr. Hyde." "Tristrene Varick" and many others, all by different authors vieing with each other in presenting the sad, the sorrowful and the tragical] "Ashes of the Future—a study of Mere Human Nature" says, "It is a psychological fact that, to express a thought familiarizes it, and to familiarize ourselves with a subject which has any terrors for us inspires us with a contempt for those terrors."

* * *

Dr. Henry A Marcy announces in the *Bos. Med. and Surg. Jour.*, his withdrawal from the Free Surgical Hospital for Women, supported by a commercial organization engaged in the manufacturing of a liquid food.

The friends of Dr. Marcy can but commend his action, as his connection with the hospital has been a "thorn in the flesh" to them for some time.

* * *

It is to be hoped that the Missouri State Medical Society will prove a successful meeting this year, but the close proximity of the A. M. A. in May is bound to interfere to a certain extent. Those who attend both gatherings so near together will give evidence of an unusual amount of enterprise.

On addition to the papers already announced Dr. A. H. Meisenbach will read a upon "First Aid to the Injured." A most timely topic and it is needless to say that it will be ably and practically handled.

CORRESPONDENCE.

LONDON LETTER.

LONDON, March 10, 1888.

EDITOR REVIEW: Professor Humphry, of Cambridge, has just issued his report based on the inquiries of the Collective Investigation Committee on the subject of aged persons. It forms a sort of corollary to his last year's report on centenarians, and relates to 824 persons whose ages ranged from 80 to 100. Here are some of his conclusions in his own words:

1. The prime requisite is the faculty of age in the blood by inheritance; in other words, that the body has been wound up, as it were, and sent into the world with initial force necessary to carry on the living processes through a long period, that this is the case with every organ, and that the several organs are so adjusted to one another as to form a well-balanced whole. The various functions will then be equably and harmoniously performed, and there will consequently throughout life be little cognizance of imperfection or ailment of any kind.

2. The body is usually well developed and, though there are many exceptions to this, rather exceeds the average standard of height. It is capable of much endurance and of quick and complete restoration after fatigue, this latter faculty giving the habit of and probably the desire for early rising; and with it also is associated a good power of recovery from the disturbances caused by accident or disease. The cerebral or intellectual powers accord with the general good quality, and the whole nervous system is active and energetic without being irritable.

3. Owing to the inherent good quality of the nutritive processes those degenerative changes which in advancing years always more or less diminish the elasticity of the arterial coats and of other parts are slow to occur, so that the pulse retains its softness and the thorax its vital capacity, while stiffness of limb and general feebleness are late in their manifestation. The decadence of the teeth which, in the animal world, generally sounds a death knell, inasmuch as it deprives the body of the means of obtaining its subsistence, does not seem to augur much in the case of civilized man to whom the teeth are less directly needed for his maintenance,

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while another cuticular appendage, the hair, seems to share to some extent, the enduring capacity of the rest of the system.

4. To this natural long livedness must be added the fair opportunities for the career of the body through the ascending and descending stages of the course assgned to it; that course will not be exceeded, but it may be and usually is curtailed. Indeed, as we know even in those endowed with the greatest perfection of physique, the natural life period is, owing to a variety of circumstances, more or less unfavorable and often unavoidable, rarely completed, and the normal processes of decay and dissolution are seldom allowed to have their regular course. In the domain of nature these processes are not suffered to advance very far for the simple reason that the weakness associated with them causes the animal to fall a victim to some one of the various methods of killing which may hence be said to constitute the natural method of death. Under the saving influence of civilization by which the rough and ready law of killing is modified, that which contributes most to the prolongation of life and the consummation of the inherited period is "temperance in all things," especially in eating and drinking, and also to a large extent in meat eating. If the world did but realize, and would have the good sense and self restraint to act upon the knowledge, how large a proportion of the ills to which man is regarded as the heir and which are, therefore, looked upon as inevitable, are simply the result of excess in eating and drinking, a large addition would be made to the average term of human life, and health, as well as a large economy in the consumption of the materials, the food-stuffs, by which life is sustained. This saving would probably more than compensate for the additional requirement made by the addition to life. Under the term "excesses" must especially be included those small day-by-day superfluities which attract the attention but little and are little thought of, but the insinuating evil of which accumulates surely, inducing often in the first instance a sense of weakness which is thought to imply a need for more of that food or stimulus which is the cause of the weakness, and which gradually sows the seeds of disease that is probably attributed to some other cause. "Temperance" is the great lesson under this head which our tables teach; and its importance overshadowing all others is a reason for not diverting attention from it by mentioning them.

5. To the recovering power, the good and often quick recovering power of the aged after operations, fractures and other accidents, ulcers, inflammatory and other affections I have on other occasions directed attention. In confirmation of these observations many cases have been published and others communicated to me privately by medical men, living in different parts of the kingdom.

6. Our returns give general evidence of the comfort and happiness of old age. Indeed, when the body remains sound, and when the respirations are, as is commonly the case, toned into relation with its diminishing capabilities when the surroundings are favorable and the mind,freed from the struggle of the world, can enjoy calm reflection on the past and the future, and by a genial sympathy with others, can fulfil the mission which remains to it here of promoting peace on earth and good will among men, the declining days are often the happiest of the long life. Finally, when the developmental processes have carried the body through the stages of its allotted span,'the gradually thinning thread of life yields without a snap, and the aged one passes contentedly and gently away."

Dr. Ferrier brought a most interesting case of cerebral abscess before the medical society at its last meeting. His patient was a man, aged 47, who, three weeks before he came under his care had first had a discharge of pus from the left ear, he had then become drowsy and to some extent aphasic. Dr. Ferrier found him able to sit up in bed and talk, but his words were incoherent and for the most part unintelligible; there was perceptible weakness of the right angle of the mouth and the right hand was weaker than

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the left though he was a right-handed man; the tendon reactions were equal on the two sides, and there was no loss of sensation; he had well marked optic neuritis. There was no rise of temperature, but this was not allowed to militate against the diagnosis of cerebral abscess rather than tumor. Dr. Ferrier arrived at the opinion that the abscess was situated in close proximity to the speech and auditory centers of the left hemisphere, though not actually destroying them, and therefore he localized the abscess as being situated in the anterior third of the temperosphenoidal lobe and abutting or pressing on the fissure of Sylvius. This localization was confirmed by the discovery on careful pressure of a tender spot just corresponding to this locality, but Dr. Ferrier was careful to explain that he did not place much reliance for localization purposes on the discovery of a tender spot, or on the fact of pain being referred to any particular spot, as pain and tenderness might be and often were reflected from some other part. As, however, it coincided with the localization arrived at on other grounds he regarded it as an additional aid to diagnosis. Mr. Horsley trephined over the spot indicated, and on removing the bone and dura mater the brain bulged into the opening a sure indication of increased pressure; the brain was punctured with a trochar and about five drachms of inodorous pus let out, and the patient made an excellent recovery, the optic neuritis rapidly clearing up.

The Charing Cross post-graduate class which was started last autumn has been a very great success, nearly 150 gentlemen and ladies have joined it, and the first course of twenty lectures having been finished, a second course has been commenced; it is intended to go on ad infinitum, that is, of course, supposing the class does not seriously diminish in numbers, and I hear that the lectures are to be collected into a volume which will come out half yearly and be issued at a very low price. Several of the other hospitals have, it is rumored, felt envious of the Charing Cross Hospital, and are, or have been, considering the feasibility of following suit, but as yet no beginning has been made elsewhere. R. M.

ANTIFEBRIN.

Dr. E. Houston, of Stanberry, Mo. March 24, 1888, writes: Having experimented to some entent with antifebrin and that too in a condition in which I have not seen it recommended, I thought that my experience and observation on the use of this drug might be of interest to some of our country brethren. I will endeavor to give my experience with antifebrin in the order in which I employed it, viz., I first administered the drug in ordinary cases, characterized by elevation of temperature. I noticed that while the temperature rapidly lowered, the aches, pains, etc., no matter where or of what intensity, were greatly alleivated, a general tranquilization of the whole nervous system ensued which was followed by sleep. Having one of those distressing cases in charge (inflammatory rheumatism), in which I had treated to the end with the classic remedies to no purpose, only the patient did not die, I was not inclined to feel pleased on being called to attend another case; a delicate girl who presented symptoms that indicated that I was in for another six weeks siege.

There being a rise of temperature with pain, swelling of the joints and general restlessness, I thought I would administer a dose of antifebrin and take time to think. I did take time to think; took five or six days, and at the end of that time my patient was up and free from any trouble.

The next case was a laborer, age about 38, attacked the same way but more severe. He was unable to rise from his bed, and suffered great pain. I gave the drug in fifteen grain doses and repeated it every four hours. He was able to walk about on the third day. I discontinued the medicine; he exposed himself to cold and relapsed. This time he was much worse; his wrists, ankles, knees, hips, elbows and shoulders could not be moved for pain. I gave the same treatment and found

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him sitting up and able to walk about the house on the fourth day.

I have had several cases of rheumatism this winter and have not had a single failure, where the treatment was persisted in as I directed.

I found that neuralgias disappeared under the influence of the drug, as promptly as did rheumatism. I tried the medicine in ordinary headaches with relief in from 30 minutes to one hour.

I have induced perfect sleep in a species of insommia due to reflex nervous phenomena in females. I have used it in cases of weakness of the hearts action; in both functional disturbances and structural lesions, and am satisfied that it is a heart tonic. I do not pretend to say just how it acts, more than to express the hypothetical view that one would necessarily deduce from the clinical experience that I have had with it.

It would seem that by tranquilizing the central nervous system, the expenditure of nerve force is not only arrested, but the amount of nerve force is actually increased. A property that no drug possesses that I am aware of.

There is no abolition of function, or even paresis of the vaso-motor, but on the contrary, an increased activity especially in the capillary circulation.

I have given antifebrin in cases where the extremities were cold, and bathed in clammy sweat, temperature below normal with an embarrassed heart, and had the satisfaction of seeing all of this disappear in an hour. I have made this communiction too long already, but before I close I will say that I should like to see the action of this drug investigated farther; ergo, examine the blood in one hour after the drug has been given, and also the urine; both microscopically. Will Dr. L. Bremer give this his attention?

If there are others who have experimented (I say experimented, for that is the naked truth), with antifebrin, I should be glad to learn the results, I trust that I may hear of better results. If on the other hand they should be bad, the danger signal should be hung out.

If this should be something new, and will be of benefit to the profession, I will gladly follow with the exact dosage and mode of administration and also the vehicle that seems to be synergistic to this agent.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday March 17, 1888. The President, Y. H. Bond M. D. in the chair; J. B. Prichard, M. D., Secretary.

Dr. C. E. Briggs.—On Monday the 12th inst I was called to a vigorous woman of 26 years of age, who had previously given birth to a fetus at less than full term. The waters had broken two hours before I reached the house. Examination showed the os high and difficult to reach, and the presentation unrecognizable. There was moderately firm resistance between the os and pubes on pressing upward, which suggested the possibility of the head being there. The mother reported the motions of the child as lively, most apparent at the fundus above the umbilicus. I could not detect motion myself. The os was dilatable, the uterus hardening under palpation; the pains were slow. She supposed she was about six weeks from full term. I gave her opium, and I left. The next day the 13th, I was not called; but on Wednesday the 14th I was called and found that labor had begun. At two o'clock P. M. notwithstanding the loss of the waters—the rupture apparently of the amniotic sac, I found the os distended by a bag, which was tense and globular during the pain. There was still a moderately firm resistance anterior to the os, but nothing was distinguishable within reach through the os. At four P. M. the os was low in the pelvis, nicely dilated by the bag. As the symptoms indicated presentation of the shoulder, it was determined to anesthetize the patient, introduce the hand, rupture the membranes, ascertain the presentation and either correct it or turn.

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I went to the house with my assistant Dr. A. N. Ravold, but the mother objected to the administration of chloroform. We retired to another room with her to endeavor to explain what we intended to do, and were summoned from that consultation to the bed-side of the patient with the news that something had happened and found the bag delivered. It proved to be the macerated head of an infant. The birth was almost bloodless, and the cord on being cut exuded but a few drops of blood. An examination showed the os occupied by what seemed to be a placenta free on all sides so far as could be reached by the finger. The cord ascended into the cavity of the womb, but its implantation in the placenta could not be felt. The pains continued good, but the placenta did not move. The fundus of the uterus was in its proper position, but was larger than a placenta alone would probably make it. The recurring pains finally induced the patient to take the anesthetic, the hand was introduced past the presenting mass, another sac of waters was found and ruptured and a foot brought down. With the able assistance of Dr. Ravold the child was delivered, the chin to the perineum, the head being so small that respiration was accomplished before the mouth left the vagina. It will be observed that there were great difficulties of diagnosis in this presentation. The dead child seems to have occupied the front of the womb; the macerated head presenting to the touch the appearance of a bag of waters, and by its presence this dead fetus prevented the detection of the sounds of the heart in the living child, while the slenderness of the form of the child and the absence of the hardness of the head prevented the possibility of determining the position of the child in the womb. The head being transformed into a sac, however, served the purpose of a good dilator of the os in commencing labor. The labor was completed at 8.30 P. M. March 14. The second child was very feeble and lived only an hour and a half. The mother thus far is doing well.

Dr. Geo. F. Hulbert.—I think the feature in this case which establishes the difficulty of diagnosis is the simple fact of the absence of the cranial bones in the presenting part of the head. I have had the privilege on two or three occasions of delivering children who were born before term in which the brain had been entirely disorganized, and the cavity of the cranium had formed a sac of pus or broken down brain tissue, and during this process the bones became more or less denuded and separated from the scalp. Of course where the bones remained, and presented in the sac, it would not be a difficult matter to determine that it was the vertex, but in this specimen there is an absence of parietal bones especially, and of course it would give simply the presentation of a bag of water and for that reason I think it would be difficult to make a diagnosis. I never have seen a case in which the bones seemed to be entirely absent as in this case.

Dr. G. Hurt.—In 1856, one evening, while traveling in Utah, I was called to a girl in confinement. She was 14 years of age, and had been in labor three days and nights. The following morning she was delivered of a living child. Up to within a few minutes before the child was born, I was in doubt whether the presenting part was a bag of waters or what it was, although they told me the waters had escaped three days before. When the child was born it proved to a case of caput succedaneum. The cranial bones were somewhat displaced, but the child did well.

Dr. William Johnston.—The case presented by Dr. Briggs was a very difficult one to diagnose. It was impossible to determine just what he had, and nothing but time would determine, unless he had put his hand in after dilating the os, which he would not have been justified in doing. I formerly gave opium, but do not now; I use chloral and think it is much preferable to opium. Now it is difficult to say what arrested the development of the child. The doctor did not say whether or not the placenta was atrophic?

Dr. C. E. Briggs.—The patient had a fall on December 15, which. I take it, was the cause of the death of the child; the placenta

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did not exude blood when the cord was cut. I think the placenta was well developed for the age of the fetus, which was only six or seven months old when it died.

Dr. Wm. Johnston.—It very often happens that the placenta at the seventh month, from some cause or other, undergoes a change; an inflammatory process is set up, which arrests development: it becomes to a greater or less extent atrophic, and the death of the child follows. It is a peculiar fact that a female who has this sort of trouble once will generally be subject to it afterward. I suppose the arrest of development in this case depended upon the injury received by the child when the mother sustained the fall, of which the doctor speaks. Inflammatory action must have followed the injury cutting off the circulation and nutrition of the placenta to some degree.

Dr. E. E. Furney.—read a paper on Ventilation.

Dr. Wm. Johnston.—I think the subject of ventilation comes home to every individual. Whether the method proposed is practical, and will be sufficiently economical, so that in the building of houses the method suggested can be carried out, is a question. But I desire to refer to one point which was made in the paper. Dr. Furney stated that persons are liable to take cold and take pneumonia by going out of a warm theatre or heated room into the cold air. Now is that a fact? When we pass out of this room, there being an excessive amount of carbonic acid, will we be subject to an attack of pneumonia. The present doctrine is that pneumonia is dependent absolutely upon the bacillus of pneumonia. If that be true, the old doctrine which the gentleman uttered to-night is dead. If pneumonia depends upon a bacillus, it does not depend upon an excessive amount of carbonic acid. Trousart shows that there are two kinds of pneumonia bacilli, one of which lives in an atmosphere of carbonic acid, while the other must have oxygen. Now if Trousart and Pasteur are correct, and those gentlemen assert positively and unequivocally that the cause of pnemonia is a microbe, then our former teachings are all wrong. I wonder if some scientific physician two hundred years from now, will not in looking over some of our works conclude that we killed all our patients, just as we think of the followers of Sydenham. The only thing that I can see is that the impure atmosphere—the presence of carbonic acid in large quantities poisons the nervous centres and the blood, just as sulphuretted hydrogen or any deleterious gases might do, and thus produce disease.

Dr. G. Hurt.—While it is true that we have pretty generally espoused the doctrine of the germ theory of disease, I believe it is likewise admitted that in the propagation of disease from the materies morbi there must necessarily be certain conditions present—conditions adapted for its propagation, and some of ablest microscopists and scholars have insisted that while consumption is classified with those diseases having a germ origin, there must necessarily be, before those germs can be propagated, a proper soil, as they term it, and in addition to the soil there must be other adaptations. We know very well that some of our most luxuriant and useful plants do not germinate or grow outside of a certain temperature, and hence we have very few growing vegetables,—propagating vegetables in the winter. The majority of our most useful plants must have a climate as well as a soil suitable to them, or else they will not grow and propagate. Any other soil, so far as they are concerned, is sterile; and it is the same with these germs; and for that reason it may be that in stepping out of an unhealthy atmosphere—an atmosphere of a high temperature, highly impregnated with carbonic acid gas into a pure atmosphere there might be danger of contracting diseases even in cases of diseases that owe their origin to germs.

Dr. Steele.—I do not believe that the author of the paper intended to bring up the subject of pneumonia or tubercular consumption but referred to it incidentally. He stated a well accepted fact that a person in coming out of a warm, vitiated atmosphere into a cold one in winter is liable to take pneumo-

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nia. I am sorry that we did not have a blackboard here (Owing to temporary meetings at Mercantile Club Ed.) in order that the doctor might have demonstrated his points. I think he has written an admirable paper. I was particularly impressed with the suggestion of building houses with double walls, double ceilings and double sash. Double sash are used extensively in northern Europe, and are being introduced in the northern part of our own country, and in time, I think they will be adopted here. You know how quickly air becomes chilled when it comes in contact with the window panes. This is evidenced by the fact that when one is smoking in a room in cold weather, the smoke will float to the window and immediately be drawn down to the floor. I believe that many children are lost in winter by being allowed to play near the windows and upon the floor, exposed to currents of cold air in both instances, the difference between the temperature near the floor and midway up in the room being ten degrees. This may produce diseases of the air passages. But with double sash this danger is greatly diminished. The doctor's idea of having furred walls, with openings so that the vitiated air may escape near the ceiling of the room and proceed downward between the walls, thus keeping the inner wall warm is admirable; also the idea of having the warm air enter the room by numerous openings so that there shall be no draft is a good one. It has always seemed puzzling to me to be told that a person required a certain number of cubic feet of pure air an hour, and therefore that rooms should be large and very high, for if we have small rooms and change the air sufficiently often we have the same effect. It has also been stated that in building hospitals the wards should be large and only a limited number of patients put in each. This seems to me an unnecessary precaution, if proper means are used for sufficient ventilation. I think a step in the right direction in the matter of ventilating churches, theatres and public buildings is being made by the substitution of the electric light for the gas jet. A single gas jet contaminates the atmosphere more than several individuals. I hope the day will hasten when electric lights will be universally used.

Dr. Geo. F. Dudley.—I regret that I am not prepared to discuss this subject, but I will say that I am pleased that the doctor has introduced the subject. It is in connection with and in the line of public health, and it is a subject which we do not look after enough. Whether or not the method suggested by Dr. Furney is practicable I am not prepared to say. If it is found to be useful in public institutions and public buildings, I have no doubt it could be introduced in the better class of buildings. I think the furred walls to which the doctor refers are in use in the northern section of our country, about St. Paul and other places in Minnesota on account of the extreme cold climate there. It would be a difficult matter to introduce these improvements among the poorer classes. I doubt if we could induce people to go to the extra expense. A very large percentage of the dwellings of the poorer classes have necessarily to be inexpensively constructed, and especial attention should be given to the devising of some plan for properly ventilating these habitations.

Dr. E. E. Furney.—I will say that a part of the paper seems to have been well understood and other parts to which I wished to call especial notice have not attracted as much attention as I would have liked. I do not believe carbonic acid is very harmful, at least it is harmless up to 23 per cent., if you have sufficient oxygen with it; it is not the carbonic acid which is so deleterious, it is the effete matters and the germs of disease which microscopists have discovered, that I wish to get rid of. I want to provide a means by which we may have a constant supply of pure air, and not a vitiated atmosphere becoming cooled and going down to the floor to be breathed again and again. I do not want that kind of circulation. By the means I have suggested, the foul air escapes, and pure air takes its place without producing a draft. Now as regards the expense. The furred walls are comparatively inexpensive. Furred

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walls have been used all over this country by people who want dry walls, but no provisions have ever been made for ventilating in the manner I have suggested. Then too the economy in the use of fuel amounts to a good deal. The warm, vitiated air passing between the walls keeps the inner wall warm. A brook trout may live many days in a very small stream, but if placed in a pond he will vitiate the same volume of water in twenty-four hours. In the wards of a hospital, if we have the beds covered by a screen as I have suggested, all the vitiated air would pass away, as the smoke in a grate goes up the chimney, no matter how much fire is kept. Then the pure air coming through the curtains which surround the bed, creates no draft. I believe by this method a patient with a contagious disease might remain in a room with others not affected without any danger of infection.

Dr. Charles Barck.—I wish to present this evening a case of orbital abscess which presents some peculiar features. The history is briefly this: The patient is a young man who became sick January 15. I saw him six days later and there was then the following condition: He was in bed, with high fever the temperature being between 102° and 103°; the region around the eye was considerably swollen, especially below and to the inside, the upper lid was also swollen so it covered the eye and could not be voluntarily raised. Upon raising it the eye ball was found to be protruding out of the orbit and standing somewhat to the outside and above; it was quite immovable in any direction. The symptoms demonstrated clearly enough an abscess of the orbit behind and to the inside of the eyeball; besides there was between the eye ball and the inner canthus a fine opening out of which there came some pus. I introduced a probe and found the whole inner face of the orbit was rough. Afterward I made an incision and let all the pus out, and got a teaspoonful of thick pus. The probe went in nearly an inch and a half so that the cavity must have reached very nearly back to the optic foramen. A drainage tube was then put in and all the symptoms disappeared quickly. He had no fever for four days and was at the end of that time able to walk out and come to my office. Six days later there was some rough borns felt, and January 31, I removed a small sequestrum—it is a piece of the lamina—of the ethmoid bone. After the sequestrum was removed fluid injected came down through the nose, and will do so still. The discharge grew less and less and the patient was discharged February 20. He came back two weeks afterward, the fifth of this month and I found there was again some swelling. When the patient was discharged the fistula was fully closed, the eye movable in all directions and there was no diplopia. When he returned there was some bioplia. I introduced a probe with some force and made the fistula larger treating him the same way as before. You will see the swelling has nearly disappeared. There is another piece of sequestrum there which I tried to remove yesterday but did not succeed.

Dr. Pollak.—I should like to ask Dr. Barck what he thinks caused the necrosis of the bone in this case.

Dr. Barck.—As to the cause, I consider this case an idiopathic one. Most of these cases of abscess of the orbit are caused either by traumatism or syphilis, but in this case neither of these causes are present. He states that the first pain he observed was after he had been out to a ball, and on coming home at about four o'clock in the morning on a very cold night he felt some pain in the eye. In many of these cases the cause can not be discovered. I examined the nose carefully, but could not discover anything abnormal. There are no symptoms indicating the presence of disease of the frontal sinus; there is no pain on pressure; there is no headache which is one of the symptoms which is indicative of inflammation of the frontal sinus, and from time to time the escape of pus out of one nostril, after which the headache disappears: I can not find any of these symptoms, and do not believe there is any disease in the frontal sinus. Besides this pus cavity is quite deep; it is quite a distance from the frontal sinus.

Dr. Borck.—I would like to ask the doctor

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if the pus escaped from the nose after the extraction of the sequestrum.

DR. BARCK.—Yes sir.

DR. RUMBOLD.—Did it go under the superior or middle turbinated process? Can you tell that by examination of the nose?

DR. BARCK.—As far as I could judge when I examined once I believe that it went above the upper and posterior end.

DR. BOND.—There was nothing to interfere with the proper drainage of the nostril, doctor; no deviation of the septum?

DR. BARCK.—No sir, nothing at all.

DR. OHMANN-DUMESNIL.—The case which I wish to report this evening is chiefly interesting on account of the very small number of such cases which are seen, and because it simulates a form of disease, which is also comparatively rare in this country. The patient is a young man whom I first saw about two and a half years ago. He was brought to me by a physician of this city for the purpose of making a diagnosis. I found that the history of the case was rather incomplete. The father was syphilitic; the mother apparently not. The patient, up to the age of fifteen years, had not exhibited any symptoms of hereditary syphilis, so far as I could learn, but at the age of fifteen, an ulcer developed on one of his legs. I have here a photograph which was taken some time before I saw the patient, and it represents him as he appeared at eighteen years of age. The patient is now twenty-one. At the time I saw the patient, I found that he had suffered with a scaly eruption of the skin and with ulcers on both legs, these being the only signs which presented themselves to the physician to whom he applied for treatment. However, this physician told me that an oculist had informed him that there were remains of interstitial keratitis, which I believe is almost pathognomonic of hereditary syphilis, at least as much so as iritis is of syphilis. His hair fell out, and the bones of the nose had been lost, as is very distictly shown in the photograph. When I saw him he presented the appearance which you see in the photograph, that is he had a general tubercular infiltration of the face and ears, the bridge of the nose had dis appeared; that organ having flattened mo or less, so that it was broad at the base, an he had well marked ridges or wrinkles in th face. The lobes of the ears were much e larged as also the conchæ. To the touch th skin was very smooth and velvety, and w apparently hypertrophied; it was very thic still it had more or less of an elastic feel it. He had been treated by some physicia for leprosy, and had taken large quantities chaulmoogra oil. He had also been to H Springs where he was benefited. In exami ing him for subjective symptoms I found th he complained of no pain, in fact nothing particular, and but for the skin trouble would not have been aware that he had a disease. I tested the skin for anesthesia a hyperesthesia with a negative result. N macules had ever developed so far as knew. When I saw him his trunk and ex tremities were free from cicatrices except a the site of the former ulcerations. The pa tient is an individual whose mental faculties are not of a high order. I very much desired to present him here this evening, but he has become very obstinate about showing him self, and even refuses to have his photograp taken. He has been placed on the alterati treatment for nearly three years, and his co dition has improved considerably, althou it would still be quite easy to recognize hi after having seen the photograph.

DR. G. F. HULBERT read a paper on "Va nal Extirpation of the Uterus and App dages." (See page, 000).

PHILADELPHIA COUNTY MEDICAL S CIETY.

Stated Meeting, March 14, 1888.

DR CHARLES B NANCREDE read a pap on "The Importance of Primary Suture Divided Nerves, With an Illustrative Case Successful Suture of the Median and Ul Nerve.

Although I have a most profound faith the vis medicatrix nature, I still think th Dame Nature should always have fair pl

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in her battle with injury or disease, and this she certainly fails to receive at the hands of too many practitioners.

In a paper published some fifteen years ago, I contended that, if with such vascular structures as those of the face, which certainly would unite soonor or later in some sort of fashion, we habitually resorted to suture, merely for cosmetic effects, we were all the more bound to do so for such avascular structures as tendons, which, if they failed to heal well, much more if no union was secured, must entail disability or total uselessnes of a member. Now-a-days a sur-geon who should fail to suture a divided tendon would be considered derelict in his duties. In like manner, I trust, that in the near future the general practitioner will be so impressed with the importance that he will consider that his duty is unfulfilled until he, or some surgeon summoned by him, has sutured any divided nerve.

It is needless for me to dilate upon the evils consequent upon the abolition of function of an important nerve, but I would recall to your minds cases which must have occurred in the practice of most of those present, where divisions of even such small trunks as digital nerves have resulted in troublesome ulceration, causalgias, etc.

Doubtless the indifference of practitioners to wounds of nerves, or, more strictly speaking their inclination to "leave them to Nature" has arisen from two causes, vis., (1) the fear that suturing might in some way determine tetanus, and (2) the well known fact that nerves divided or even excised with the avowed intention of abrogating their function too commonly reunite.

The first should not deter us, as we now know that a suture, per se, can never orginate tetanus; while as to the second objection, certain facts which I shall submit for your consideration warrent the conclusion that traumatic divisions of nerves, unless effected by a clean cut—or perhaps ball wounds—involving solely the nerve and little, if any, of the contiguous structures, differ so materially from those purposely effected by the surgeon's knife, that conclusions derived from the result of neurectomies cannot safely be applied to accidental divisions of nerves.

Besides, granting that reunion will occur without suturing, as a stitch can do no harm, why not use one, since it will at least conduce to a more rapid resumption of function? While primary union of nerves with immediate resumption of function—i. e., in a week or ten days, is a surgical rarity, yet it does at times occur, and would doubtless be of more frequent occurrence, if suture were the rule and not the exception.

My aim in this brief note is merely to call your attention, as general practitioners in whose hands many of these cases will fall, to the duty of suturing divided nerves as a routine practice, just as you would tie arteries, and to describe a simple, effective method of carrying out the indication.

A critical examination of the histories of nearly all exsections of nerves where reproduction has occurred, will show that they were removed either from a bony canal or from an intermuscular space in which they normally laid, with the minimum of injury to the surrounding tissues. Moreover, even when their ends have been turned back and sutured in position or even buried in the surrounding tissues, they have been so secured in the same intermuscular space which the nerve normally traverses. In other words, the bony canals and the intermuscular spaces likewise, act as moulds which direct the course of the reparative material from the proximal to the distal end of the severed nerve.

In extensive wounds, however, this condition does not obtain. Intermuscular spaces are dislocated, large masses of scar tissue are formed, so that instead of the new nerve-tissue being compelled to grow in only one, and that the right direction, it has too often an insuperable barrier interposed and union fails.

In the case which I now show you, the proximal ends of the (In this patient the brachial artery was also torn through, leaving only a bridge of muscle and skin through which collateral circulation could be carried

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on. The deficient blood supply possibly explains the failure of the recovery of power in the interossei muscles, although other of the intrinsic muscles of the hand which are supplied by the ulnar nerve contract well.) ulnar and median nerves were directed at right angles to their inter muscular space, and would have been infallibly fixed between the ends of the torn muscles in a dense mass of scar tissues, resulting in permanent loss of power of the member. In the seventh month after suture—i.e., the usual period required for the degeneration and regeneration of a nerve, first sensation, and then motion returned, until now, although the functions of the menber are not perfect, the boy can earn his living, and do nearly all that can be effected by a normal hand and forearm.

Further quotation of my own cases or those of other surgeons seems hardly necessary and such good results as I here show you have been frequently reported.

Finally, how should the sutures be passed and what should their material be?

Fine aseptic catigut passed by means of an ordinary sewing needle is to be preferred, but fine aseptic silk can be used ,and I myself have resorted to this in an emergency. Should the nerve be very much lacerated and frayed out, it may, perhaps, be sometimes proper to cut off a portion to gain a clean surface, but this is rarely desirable. The needle should be passed from below upward through the proximal end of the nerve at one border, across and then passed from above downward near the opposite border, entering the nerve from an eighth to a quarter of an inch from the cut end, according to the size of the nerve. The needle must now be passed from below upward through the distal portion of the nerve at the border corresponding to the last passage of the needle through the proximal end, across, and made to pierce the nerve from above downward, when the suture will be found to correspond to the free end of the thread in the proximal piece of nerve.

Gentle traction with an appropriate position of the member will, by the tying of one knot accurately approximate the nerve ends; in a word by this simple method all the advantages of the two separate sutures commonly recommended are obtained with a far greater degree of security. I need not say that the strictest asepsis should be secured which is easy enough provided the wounded part, the surgeons hands and his instuments be strictly cleansed, and the wound be freely irrigated with the bichloride and tartaric acid solution. If the surgeon gets an uncontaminated wound, it is his own fault if he has suppuration, and even with the ordinary run of accidental wounds, if he will thoroughly scrub his hands with a nail brush and hot water, and likewise so treat the parts surrounding the wound, pour boiling water over his instruments, without any further antisepsis, in most cases healing without suppuration can be secured, while the omission of these details will mar results with gallons of mercuric solution flowing over the wound.

In the discussion of the above paper, Dr. J. William White said: The general principles of nerve suture are admitted by all surgeons, but the question of resecting lacerated or contused ends before suturing, or, of allowing them to remain, is one that should be carefully considered in each case. By resecting longitudinal tension is increased, while if crushed nerve tissue be left it may not recover itself. Dr. W. W. Keen cited a case that occured ten years ago in which he used a hare-lip suture to coaptate the ends of the nerve. The pin and thread were removed at the end of forty-eight hours. A recent report states that the patient has perfect use of the fingers which the nerve supplied.

SELECTIONS.

Cascera Sagrada (Rhamnus Purshiana).—Recent investigation of the constituents of *Crscara sagrada* has led to the discovery of new principles and facts of great importance pharmaceutically and therapeutically. The chief objection to *Cascara sagrada* heretofore has been its inherent bitterness, but it seems that tasteless preparations of this drug

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highly efficacious medicinally, are now to be had. These discoveries are considered a distinct advance in pharmaceutical attainment and in the therapeutics of chronic constipation, since this remedy can now be much more generally and persistently administered, and its well-known tonic laxative action obtained without the drawbacks which seemed formerly inseparable from its employment. The facts disclosed indicate the existence of principles and modes of action extending far beyond the subject indicated, and are well worth the close attention of the thoughful and scientific physician. A valuable contribution to our knowiedge of the chemical constitution of this drug, by Mr. H. F. Meier and Mr. J. Leroy Webber, appeared in the "American Journal of Pharmacy" for February, 1888, which not only makes it possible to obtain a true interpretation of the various clinical observation, but clearss up apparent anomalies, and also indicates the reasons for observed effects which have lately been disputed, but now admit of no further question or misunderstanding. Among the discoveries of special interest to the physician referred to is the influence of a class of vegetable ferments and their recognition as the causes of various abnormal conditions—such as colic, vomiting, nausea, diarrhea, and dysentery—which occasionally attend the administration of certain drugs. It appears that frangula bark, when fresh, contains such a ferment in excessian xuantities, and is therefore unfit for use until the ferment has exhausted itself—the process usually occupying several years. It also appears that cascara contains some of this principle, and this fact will account for the occasional untoward effects of the drug which have been observed as consequent on the employment of a number of its preparations heretofore in the market. These effects are, therefore not due, as has been supposed to any idiosyncrasy on the part of the patient, or to the laxative or tonic consitituents of the bark itself, but to a distince objectionable principle which, once recognized, can be rendered inoperative and harmless.

Messrs. Parke, Davis, & Co., of Detroit, have clearly recognized the principles involved, and by their application have formulated and adopted correct pharmaceutical processes and thus overcome all the difficulties heretofore existing. As a result of their investigations, they now offer to the medical profession a fluid extract, a solid extract, and also a concentration, all of which (designated as "formula of 1887") exhibit only the disirable laxative and tonic properties, and, being free from this ferment, are incapable of producing griping, nausea, or any of the evil effects above mentioned. It appears that these ferments are distributed through a large number of vegetable substances, and are not confined to unripe fruits, but may also exist in the root, bark, leaf, or even vegetable extract, of which we have illustrations in various juices, liquid or inspissated. Of this latter class aloes will serve for an example. A familiar illustration of an unaltered vegetable would be the green apple (familiar to the school-boy), and unripe fruit generally. In the case of the cucumber, experience has taught the means of removing this ferment by dialysis or osmosis. We sprinkle salt over it or surround it with a strong brine, which provokes an outward flow of the fluid containing the ferment, with the result that the ferment is to a large extent removed, and thus rendered incapable of producing the same conditions in the stomach for which it was intended in the plant—that is, the creation of vegetable acids from other material previously existing, in the same mannar that pepsin, likewise an unorganized and soluble ferment, provokes the solution of fibrine and albumin, forming peptone, or as diastase is capable of effecting the transformation of starch into soluble glucose and dextrin both new bodies. That these ferments all bear a direct quantitative proportion to the results accomplished has been practically recognized. We are promised a satisfactory indication of the sources of the acids formed in the plant which will enable us to corroborate the statements that identical processes go on in the stomach when the ferment is permitted to exert its action there. The physiological

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tests now being conducted at the laboratory of Messrs. Parke, Davis, & Co. with the different principles contained in the plant are expected to demonstrate finally not only the superiority of cascara to frangula, but also its comparative value as a laxative.

BOOK REVIEWS.

A Practical Treatise on Diseases of the Skin, by John V. Shoemaker, A. M., M. D., Professor of Skin and Venereal Diseases in the Medico Chirurgical College and Hospital of Philadelphia.

Those who know Dr. Shoemaker will expect from him a book of merit, fully up to the progress of the times in all its departments.

It is now an established fact that no work can obtain and hold a grasp on professional opinion that is not backed by genuine worth. What constitutes merit? Confessedly, the prime factor is originality in conception of cause and effect as applied to the phenomena of diseases, and the better application of remedies for their relief.

The author claims no originality except "a statement of the relative effects and values of numerous agents tested in my own many years of clinical experience in the treatment of skin diseases." As a result we find a very voluminous formulary of 58 pages comprising the special prescriptions of eminent dermatologists of every country. As a rule, we are opposed to stereotyped prescriptions, but in dermatology more than in any other field, we believe they are valuable as furnishing a correct knowledge of how to compound and apply these agents to suitable cases, which proves an awkward procedure to the general practitioner and beginner.

The pictures by the photomicrograph are not up to the general construction of the book, and are, indeed, quite unsatisfactory.

The etiology, pathology and physiology are abreast with the latest information on the subject.

The main question after all is, should the book be recommended to the profession with all the other works on this branch of our art? If so, why? We unhesitatingly say yes, and our reasons are:

1. It is written by an active general practitioner, who has had a ripe experience in the study of diseases of the skin, and not by a contracted specialist whose investigations have never gone below the cuticle.

2. That the text has been rid of all superfluous technicalities, thus making it easily intelligible to every reader.

3. Because it is eminently practical and concise.

A. G. M.

Visiting List and Pocket Account Book of the New York Medical Journal, D. Appleton & Co., New York.

This pocket visiting list and account book is very compact in form, and contains calendars for '88 and '89. Chapters on artificial respiration, prevention of puerperal fever, according to the antiseptic methods advocated by Playfair, eruption of the teeth, pulse rate at different ages, comparison of thermometers, restoration of animation in anesthetic syncope, poisons and antidotes, table of doses, metric tables, tables of common weights and measures, and chart of thoracic and abdominal organs. It also contains a very concise system for keeping individual accounts whereby, at a glance, can be seen the summary of work done for each individual from one week to one year or more. Spaces are also appended for bills sent, vaccine and obstetrical engagements, and for deaths. W. H. M.

Dr. Normann Kerr reported (*Brit. Med. Jour.*) the result of one hundred and fifty cases that had passed through the Dalrymple Home for Inebriates, during the last four years and a half. Of these eight per cent were produced by wine and beer only, the rest took spirits as well, or alone. The average time of residence was seven months. Fifty-two cases were reported doing well, four improved, thirty-six had not improved, one insane, four dead and eighteen not heard from.

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THE WEEKLY MEDICAL REVIEW.

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REPORT ON PROGRESS.

OPHTHALMOLOGY.

BY R. L. THOMSON, M. D.

I to VII. NOTES.

VIII. EXOPHTHALMIC GOITRE.

IX. TREATMENT OF EXOPHTHALMIC GOITRE, by Vigouroux.

X. PROGNOSIS OF NEURO-RETINITIS IN BRIGHT'S DISEASE.

XI. CLINICAL VALUE OF HYDROBROMATE OF HOMATROPINE.

XII. EXTRACTION OF CATARACT WITHOUT IRIDECTOMY.

NOTES.

Drs. Loring, Pooley, Thompson and Ryerson have reported a number of cases in which sufficient sight was restored by the induction of premature labor in cases of albuminuric retinitis to warrant the operation.

Experiments are being made with a new anesthetic, "erythrophlein." A solution of this drug instilled into the eye is said to produce an anesthesia which lasts from ten to twenty-four hours. In the form in which it was used it proved to be too great an irritant to be applied to the eye.

Dr. W. A. McKeown, of England, reported one hundred consecutive cases of cataract, mature and immature, treated by intra-ocular injection. His results did not show that this method was superior or even equal to simpler ones.

Mr. E. A. Browne, of England, concludes that in "Tobacco Amblyopia," "besides tobacco, a special condition is required to precipitate an attack; alcohol, diabetes, excessive venery, starvation, mental shock or distress are the most common auxiliaries." Many years ago Dr. D. B. St. John Roosa, of New York, made a special investigation of this subject, and found that tobacco alone did not produce amblyopia.

The recently published work on "Functional Nervous Diseases," by Dr. George T. Stevens, has given rise to extended controversy in the New York medical journals, as to whether the author has added anything new to our stock of knowledge. Let the matter be decided as it may in the minds of physicians, one fact cannot be disputed—Dr. Stevens has succeeded in calling the attention of the profession to a means of relieving a class of cases that have heretofore been only partially relieved by heavy prismatic glasses, or have been dosed with nerve tonics to no purpose.

Dr. J. B. Emerson, of New York, has invented an apparatus in which ten prisms are so arranged that they can be rapidly placed one after another in front of the eye. The muscles of the eye can be tested in one quarter of the usual time.

The chief difficulty in testing the muscles of the eye for insufficiency is to determine just when the patient's head is held straight. Many patients are unable to decide when their eyes are in a horizontal line. Especially is this true of cases of insufficiency. Dr. Wm. H. Wilmer, of New York, advises that the prisms be placed in spectacle frames and a small spirit level be attached to the

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top of the frame. This is a good idea, and we hope Dr. Emerson can attach the level to his apparatus.

Exophthalmic Goitre.

Dr. J. Madison Taylor read a paper before the Philadelphia County Medical Society (*Med. News*) on the Early Recognition of Exophthalmic Goitre. In reviewing a number of cases he finds that the most constant early symptom is sudden and marked loss of nervous equilibrium. The vaso-motor nerves seem quite unstrung. Hence arise flushing, sweating and other skin changes, diarrhea and transient albuminuria. The skin loses its healthy hue, grows sallow or dark and becomes greasy to touch and sight. Throughout the whole vascular system there is a manifest lack of tone. So constant a symptom is this loss of nervous force that it may yet lead to a discovery of the causation of the disorder.

Electrical examination has been very recently shown by Charcot (and confirmed by Vigouroux and Norris Wolfender) to aid greatly in foretelling the onset of the trouble, the body resistance being greatly lessened most peculiarly in this disease.

Dr. J. West Roosevelt presented the report of a case of goitre and of the autopsy of the same before the New York Neurological Society. Microscopical examination of the medulla, sympathetic and vagus nerves revealed nothing abnormal.

Dr. Starr calls attention to Dr. Ross' report of his examination of twelve cases, in eight of which he found lesions in the sympathetic. The pathology, however, was not clear. It was difficult to understand how any one lesion could produce all the phenomena of the disease. The hypothesis accepted by Gowers was that of lesion of the vagus nucleus in the medulla. The rapid pulse would be accounted for by the loss of inhibitory power of the vagus. It was known, too, that vaso-motor disturbances were produced by irritation of the medulla in this region. The speaker (Dr. Starr) had collected twenty-one cases of lesion of the medulla, in eight of which the lesion was in its upper part, in the region of the nucleus of the tenth nerve. In all those cases there were subjective flushings and objective increase of perspiration; while in thirteen in which the lesion was in the lower part of the medulla, there were no vaso-motor symptoms whatever, thus substantiating the hypothesis of physiologists that there is a vaso-motor center in the medulla, and that this center is in the neighborhood of the nucleus of the tenth nerve.

From the foregoing our readers will see that close observers are still groping in the dark in search of the cause of this peculiar disease. The greatest diversity of opinion exists as to what remedies will give the best results in these cases. From the discussion of them galvanism seems to have given the best results where exophthalmos was a symptom. We have seen marked improvement in two cases under the use of the constant current. The enlarged thyroid gland has been successfully removed in a number of cases.

To prevent degeneration of the cornea from contact with foreign substances, Dr. W. O. Moore, of New York, recommends that the upper and lower lids be united, leaving the eyeball thus covered for a few weeks. This he recommends in cases in which corneal complication threatens.

The Treatment of Exophthalmic Goitre.

Dr. R. Vigouroux lays great stress upon the kind and method of application of electricity in the treatment of this affection. He employs faradization in the following manner: 1. A large electrode from 7 to 8 ctm. in diameter is applied to the inferior part of the neck posteriorly, and is held in position by the means of a band. The other electrode is olive-shaped or button shaped, less than 1 ctm. (2-5 in.) in diameter, and is connected with the negative pole of the battery. This electrode is applied behind the angle of the jaw, in front of the sterno-mastoid muscle, and is made to press upon the carotid artery. The application is made dur-

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ing a minute and a half, and is then transferred to the opposite side, where it is continued for the same length of time. 2. The small electrode is then passed lightly over both orbiculares palpebrarum in turn. 3. The olive electrode is now replaced by a plate 4 ctm. (1 3-5 in.) in diameter, and is applied to the thyroid tumor. 4. The small electrode is now rendered positive, and is applied to the precordial region, in the third intercostal space, to the left of the sternum, and the current should be sufficiently strong just to excite fibrillar contractions. The application is made for two or three minutes. The seances are repeated every second day. There is no advantage in repeating them daily. The ill success of the treatment of this affection, the author thinks, is due to want of attention to the foregoing details. In most cases it was the only treatment he employed, and his results were exceedingly good. Hydrotherapeutics is unnecessary with this form of treatment.

Prognosis of Neuro-Retinitis in Bright's Disease.

A number of papers have been recently read before various medical societies, giving the statistics as to the prognosis in acute and chronic renal disease in which ophthalmoscopic examination showed retinal changes. The prognosis, based upon the cases reported, is in keeping with that given on cases heretofore recorded. We append the following (*Brit. Med. Jour.*) from the proceedings of the Ophthalmological Society of the United Kingdom. The conclusions therein submitted by Dr. Miles Miley, as being justified by statistics from the London Hospital, were: 1. That the retinal changes occur late in renal disease. 2. That their presence appears to affect the prognosis very materially for the worse, the mortality in hospital amongst the affected cases being at least doubled. 3. That the prognosis is so bad that not one has lived eighteen months after the changes have been noted. 4. That, therefore, the ophthalmoscope affords a most valuable index as to the course any given case of Bright's disease is taking (except, perhaps, in pregnancy cases), unless, indeed, it be supposed that the mortality of the cases considered happened to be exceptionally high, independently of the causes at work which produced the coincident neuro retinitis. Mr. Simeon Snell (Sheffield) also read a paper on this subject. He held that the subjects of retinitis albuminurica that came before the ophthalmic surgeon were to be regarded as having generally speaking, a tolerably defined, or a short limit to their existence. This referred to cases at all ages. He did not think that the retinal changes ever preceded the kidney diseases, as some asserted they might do. He referred to Dr. C. S. Bull's observations before the American Ophthalmological Society in 1886. Out of 103 cases 86 had died, 57 in the first and 12 in the second year; of the 17 living 14 were seen during the last six months; 1 had been seen seven years previously. Dr. Gruening reported of 100 cases that none had lived over two years. Mr. Snell alluded to the frequency with which the diagnosis of renal disease was made through patients seeking advice respecting sight, and notwithstanding the numbers that thus passed before the ophthalmic surgeon, his knowledge of the cases was for so brief a period, that the final results were not easily noted. He could only just now trace eight cases to the end. The respective ages were 37, 34, 56, 59, 31, 66, 23, 39; and the periods of death after the retinal mischief was diagnosed 6 weeks, 4 1-2 months, 5 1-2 months, 10 months, 2 1-2 months, 5 1-2 months, 8 weeks, 14 months. Reference was made to the better prognosis in the retinitis associated with pregnancy. Mr. Critchett thought that all ophthalmic surgeons now recognized the gravity of the prognosis in these cases. He recalled three instances occurring in medical men who lived for five, thirteen and ten months respectively after the discovery was made; in the first mentioned patient only one eye was affected. Mr. McHardy thought a distinction must be made between hospital and private cases. He had only known one hospital patient live for two

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years after the condition was discovered. In young persons, in those in whom it was associated with excessive drinking, and in association with pregnancy, the prognosis was not so bad. Dr. W. J. Collins had seen one case of subretinal effusion in acute nephritis preceded by blindness and severe neuro-retinitis. He remarked that Dr. Miley's paper necessarily only dealt with those who were ill enough to come into a hospital, and concluded by discussing the proximate cause, with especial reference to hypertrophy of the left ventricle, and the hydremic condition of the blood. Dr. Van Millingen had seen one case eight years previously where only one eye was affected. Dr. Anderson, in reply, doubted whether there was much difference in prognosis between hospital and private cases; the prognosis was very bad, though exceptional cases were occasionally met with. He believed it was sometimes impossible to distinguish between cerebral and renal neuro-retinitis.

Clinical Value of Hydrobromate of Homatropine.

A number of experiments have recently been made with hydrobromate of homatropine to determine its clinical value in ophthalmology. Dr. John S. Stewart, of Philadelphia, gives (*Med. News*) the following conclusions:

First. Single instillations of less than the one-fifteenth of a grain of hydrobromate of homatropine are of no value for the correct estimation of ametropia.

Second. On account of the quick return of the ciliary power and normal size of the pupil after single instillations of the one-fortieth of a grain or less, of hydrobromate of homatropine, this drug is extremely useful in cases where an accurate ophthalmoscopic examination of the media and fundus of the eye is desired.

Third. As a single instillation of an absolutely neutral salt does not act as an irritant, the drug may be thus employed for purposes of precision, even in cases where local irritation exists.

Fourth. On account of the constant local irritant action of repeated instillations of hydrobromate of homatropine, this drug may be considered harmful in certain cases of inflammatory disease, or traumatic lesion of the ocular coverings and tunics.

Fifth. The fact of the constant irritant action of repeated instillations of homatropine hydrobromate on the deeper tunics of the eye, the choroid, and probably to a certain extent the retina, gives answer in great measure why ametropia cannot be properly estimated; hence the drug should be avoided in the correction of refractive error.

Extraction of Cataract without Iridectomy.

In a paper read before the Medical Society of the State of New York (*Med. Rec.*), Dr. Hermann Knapp gave a report of one hundred successive cases of extraction without iridectomy. The speaker said that the revival of the classical flap operation for the extraction of cataract would be hopeless without the assistance of cocaine, eserine and the antiseptic method. These prevented the two great drawbacks of the old method—prolapse of the iris and suppuration, which had destroyed innumerable eyes. The combination of iridectomy with extraction of cataract by Graefe had reduced the loss of eyes by one-half. After describing the method of operation in the new operation, Dr. Knapp stated that in the present series of one hundred simple extractions prolapse of the iris had occurred in 11 cases; all, with one exception, regained good sight. Suppuration occurred in one case, the only failure of the series. It was produced by secondary infection in a patient suffering from cystitis and diabetes. The visual results in this series had been good without precedent, for ninety-five per cent of the patients regained good vision (nineteen per cent had V.—$^{20}/_{20}$); four per cent moderately good; one operation failed. Dr. Knapp felt sure that the high rate of visual acuteness was largely due to the subsequent discission of the capsule—an opera-

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tion free from danger, which he performed in the majority of the cases.

Dr. David Webster, of New York, recently removed at one sitting a cataractous lens from each eye of a patient. The result was V.—$^{20}/_{30}$ in each eye, and perfectly circular movable pupils.

ORIGINAL ARTICLES.

VAGINAL EXTIRPATION OF UTERUS FOR CARCINOMA; WITH REPORT OF A CASE.

BY GEO. F. HULBERT, M.D.
Late Superintendent Female Hospital, St. Louis.

In selecting the above for our subject, it is our purpose to present, as far as lies in our power, the work done in this direction up to date for the purpose of refreshing the memory, and to place on record an additional case and give some thoughts regarding our position toward the operation; make comparisons with the high amputation method, and advance arguments for other adoption of a uniform systematic method of procedure.

In going over the literature at our command we have found and desire to present the following: Dr. A. Palmer Dudley in an able and well prepared paper published in the *N. Y. Med. Jour.*, 1887, gives the record for America up to 1887. Dr. Dudley gives the credit for the first operation done for carcinoma (encephaloid), to Prof. Paul F. Eve, of Augusta, Ga., on April 16, 1850: recovery from operation on 17th day. Death of patient from recurrence in 3 months and 1 week.

This however was not the first extirpation of the uterus per vaginam, but the first for carcinoma. In Sept. 1834 a successful hysterectomy was made by Dr. Jno. M. Eastman, Nashville, Tenn., for inversion; a good recovery followed. He again in Aug. 1843 operated, for inverted uterus containing a fibroid. Others followed his example.

Dr. Dudley was not able to find a single recorded case, in America of hysterectomy per vaginam for carcinoma, during the period from 1850 to 1878.

During this period the method pursued seems to have been by abdominal section and numerous cases are recorded of removal of the uterus or its body for malignant disease or fibroids. As early as June 25, 1853, Dr. Walter Burnham of Lowell, Mass., operated by this method, followed by Dr. Gilman Kimball of the same city, in August of the same year.

On Jan. 30, 1878, Freund's operation was given to the profession.

The record of death and disaster which has followed it, Dr. Dudley truly says, leads one to hasten to pass by its consideration.

The next recorded case is that of Dr. Emil Noeggerath, of New York, who by a combined method, vaginal and abdominal, on Oct. 17, 1876, attempted a hysterectomy, but on a account of the condition of the broad ligaments left the uterus in situ after ligating the blood supply. Death from septicemia on the fourth day,

The next on record was by Dr. L. C. Lane of San Francisco, who on Nov. 11, 1878, did the operation for epithelioma of the cervix, and repeated it the same year.

Baker, of Boston, followed this on Jan. 28, 1880; patient died in 12 hours from shock.

Cushing, of San Francisco, Cal., was next on the record, Sept. 4, 1881, with a case, followed by Anderson and Taylor of the same city, and Fenger, of Chicago, with successful results.

In the East after this surgeons resorted to the operation, and during the year 1882 six operations by as many operators were made, the result being a loss of five patients. In 1883 eight operations by seven different opetors with two deaths. In 1884 eight operations by six operators, were done with a results of one death, so that from Nov., 1878 to the first part of 1885 thirty operations had been done, with death of ten patients.

During 1885 Dr. Dudley gives the records of fourteen additional operations with a fatal result in eight. Of the operators in these cases only Mundé, Lane and Weir had previously performed the operation.

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I 1886 twenty-one cases were recorded. With the exception of three whose cases were all successful, the operators were men of experience. Five of the twenty-one cases resulted in death. Of the sixty-six cases collected by Dr. Dudley twenty-three resulted fatally, while forty-three patients recovered, and remained well for periods varying from three months to three years. Thirty-three of the sixty-six are tabulated as epithelioma of the cervix extending more or less into the body. Four are considered carcinoma of the body; three as sarcoma of the cervix and one as sarcoma of the body.

In the above which which I have gleaned from Dr. Dudley's able paper, we see that America has not been behind the times by any means and that the West has led the East by a large majority when it comes to pioneer work.

Hysterectomy was not born in America, however, for Andreas, of Cruce is credited with it in 1560. Langenbeck is known to have done the operation in 1813, followed by Sauter in 1822, Blundell in 1828 and Récamier in 1829. It was hardly tolerated, and remained dormant in Europe as a surgical curiosity until April 12, 1878, when Czerny revived it and did the operation which with few modifications is the accepted operation of to-day.

In our own city the record while not large, is an excellent one for the operation.

Dr. A. C. Bernays on Dec. 12, 1883, made his first one and the twenty-second operation done in America. Dr. Bernays stands at the head of the list as regards results, having had six cases and no deaths.

Dr. B. M. Hypes of this city operated in May 1886, the patient dying 6 weeks after of exhaustion.

Dr. N. B. Carson, of St. Louis, operated Aug, 1885, the patient recovering and going home on the 21st day. Dr. Funkhouser operated July 17, 1886, recovery. Death of patient occurred three months later from recurrence.

Dr. T. F. Prewitt, of St. Louis, operated on Oct. 14, 1886, recovery.

Dr. Sara E. Post in the *Amer. Jour. of Med. Sci.* Jan. 1886, has collected the records of all the operations to that date, and these records seem to be the most reliable of all in this country and Europe. It is evident from these that there has been a steady improvement in results and we are in a position to judge what the future must bring forth.

The total number of operations from all sources up to, and including each year, was as follows:

	Cases.	Deaths.	Recoveries.	Mortality per cent
1880	30	11	19	37
1881	64	20	44	31
1882	137	40	97	29
1883	218	63	155	29
1885	341	93	248	27

In *Am. Jour. of Obs.* Nov. 1887, Dr. Post presents the records for 1886-87 which gives 381 cases with 77 deaths and 304 recoveries, making a grand total up to close of 1887 of 722 cases, 170 deaths and 552 recoveries showing a total mortality of 24%.

Certainly in this record there is cause for congratulation and hope for the future.

Taking the work of individuals who have had especial opportunities, the mortality is still less, and only serves to establish the old maxim of practice makes perfect.

At the close of 1886.

	Cases.	Deaths.
Fritsch reports.	60	7
Leopold "	42	4
Olshausen "	47	12
Schroeder "	74	13
Stande "	22	1
A. Martin "	66	11
Total	311	47

or a mortality of 15.1 per cent.

This is less than the mortality presented by Kuester, in 778 cases of extirpation of the breast, which was 15.6 per cent.

The results as regards recurrence I find from the reports at hand are most encouraging; and when women are taught to recognise the fact that vaginal discharges, or leucorrhea, are not always due to taking cold, but may be the sole and only symptom of beginning benign or malignant processes and act accordingly, the results in this direction may be made to closely approach 100 per cent.

Martin reports in 44 cases surviving the operation up to the latter part of '85 recur-

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rence in 18 or 29.7 per cent; non-recurrence in 31 or 70.3 per cent.

In 29 cases operated upon and surviving, previous to '82, 18 were well at the close of two years.

Of 97 cases surviving from operations done previous to 83, 20 per cent are known to be well.

Fritsche reports from his cases that out of twenty-two who survived the operation previous to '85, twelve remained well at the end of two years.

Leopold reports that of 26 cases surviving the opertion 18 were well in from one to three and a quarter years after operation, or 69.2 per cent.

Hofmeier, of Berlin, reports on the question of recurrence as follows, for total extirpation:

No. Cases.	Years after.	Recurrence in.	Cure in	Or Per Cent.
33	1	13	20	63.6
29	2	22	7	24.1
23	3	17	6	26
11	4	11	0	

For partial extirpation he presents the following:

No. Cases.	Years after.	Recurrence in.	Cure in	Or Per. Cent.
96	1	47	49	51
84	2	46	38	46
57	3	33	24	42
46	4	27	19	41.3

He reaches the following deductions regarding the prognosis in the individual forms of carcinoma of the cervix.

1. The most unfavorable prognosis as regards rapidity of recurrence is offered by large cancroids of the cervix, especially where they affect gravidæ or puerperæ.

2. The prognosis is relatively good in cases of carcinomata of the mucous membrane of the cervix, so long as the substance of the cervix is not entirely invaded.

3. The best prognosis is offered by the cases of primary carcinoma of the cervix, whether it spreads as a papillary tumor toward the vagina, or as an ulcerating process in the substance of the cervix.

At present the statistics are too meagre, and sufficient time has not elapsed to admit of a final judgment as to recurrence.

Vaginal hysterectomy as an operation is to-day freely accepted in Germany and in America. The only radical opponent of any prominence so far heard from is Dr. Jackson, of Chicago, whose argument, for those who desire, can be found in the Trans. of the Ninth International Congress. It is but fair to both sides to state that Dr. Jackson's arguments and conclusions are those of an able, earnest and conscientious worker, and as long as he pledges his faith on a radical belief in the principles of morality and humanity only, profound respect and honor must be given to him: he has the floor for just fifty per cent of the time; but when it comes to the acceptance of his logic, the statistics and equally laudable efforts, actuated only by the desire to do the best possible, by stepping out in the field of experimentation, if you please, but not without strong and well grounded reasons, for those whose doom is inevitably sealed without some radical means of relief, the other side has the floor, for just fifty per cent more of the time, and must be heard, on the grounds of right and justice, of which morality and humanity are only creatures, and are included.

Those who have not read the arguments that were presented by the gentlemen who discussed this subject at Washington, at the medical congress, should do so.

Koeberle, (Strasbourg) presents in the *Nouv. Arch. d' Obstet. et de Gynecol.* '86, his views, which are clearly and forcibly set forth, and seems to occupy a middle-ground regarding the treatment of uterine cancer. They may be summarized as follows: Primary cancer of the body of the uterus is exceedingly rare and when it exists, the cervix is not affected for a long time. Cancer of the uterus usually begins in the cervix in the neighborhood of the external os, and thence progresses throughout the cervix extending to the vagina and the adjacent organs before it extends beyond the level of the internal os. Just so long as the disease remains localized, that is to say, has not extended to the broad ligaments or the lymphatic glands which communicate with the lymphatic vessels of the uterus; so

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long is the body of the uterus sound, and it is therefore absolutely useless to remove it. On the other hand in case of primary carcinoma of the body of the uterus, or of epithelioma, fungosities etc., of the mucous membrane. It is useless to remove a sound cervix.

It being admitted that total extirpation of the uterus, whether by abdominal section or by the vagina, is more difficult and more dangerous than partial removal of either cervix, or the body (the latter statement being questionable) hysterectomy should be reserved for those special cases where hysterotomy will not suffice for the complete removal of the disease. It follows, therefore, that abdominal hysterotomy should be applicable only to those very rare cases of primitive cancer of the body of the uterus, and to those affections of the mucous membrane of the body existing without implication of the cervix; and it follows, also, that vaginal hysterotomy, should be reserved for the cases where the cervix to the level of the internal os, is alone diseased.

It being admitted then, "and every experienced surgeon will admit this", that total extirpation of the uterus, whether by abdominal or vaginal method, is infinitely more dangerous than vaginal hysterotomy, total extirpation should be rejected as unjustifiable, except in those cases where there exists complete prolapse of the uterus and where in consequence total extirpation is simpler and easier of performance than hysterotomy. If, during the performance of vaginal hysterotomy, the bladder is found to be diseased, the operation, whilst as useless as hysterectomy is certainly less dangerous, and yet as laudable an attempt will have been made to prolong life without the greater risk of a hysterectomy.

Koeberle has performed vaginal hysterotomy nine times for carcinoma of the cervix; recurrence in two cases: in one case it is too early yet to give a definite result. He has operated only in cases where the disease was localized in the cervix. In 1879 he performed abdominal hysterotomy for epithelioma of the uterine cavity, no recurrence as yet. In 1882 he performed vaginal and abdominal hysterotomy on the same patient, no recurrence within three years.

To epitomize Koeberle's views we have the following: Hysterectomy for cancer of the uterus is rarely indicated. It is useless when the disease has extended beyond the anatomical limits of the organ. When the cervix and the body are affected singly or together, without extra-uterine extension, hysterotomy, whether vaginal or abdominal, will suffice and is far less dangerous than hysterectomy.

Dr. Baker, of Boston, in 1882 published the details of a method of high amputation devised by himself of which Koeberle's vaginal hysterotomy is practically an imitation.

At that time Dr. Baker had operated ten times by his method. In Jan. 1886, he made a supplementary report showing the status of these patients, which is as follows:

Patient well		After operation. Years	Months
1	"	8	
1	"	6	2
1	"	6	
1	"	5	3
1	"	4	8
1	"	4	

One patient died at the end of four months.

There was no death immediately after the operation. This shows a percentage of 60 well four years or more after the operation.

The lowest mortality from other methods of high amputations was 7.3 per cent.

Baker claims for this method over all others. First more of the uterus may be removed. Second the peritoneal cavity is not necessarily opened. Third. It gives a large percentage of cures.

Dr. Jackson, of Chicago, reports 21 operations after Baker,s method with the following results:

In six cases there was a recurrence of disease and subsequent death. In 4 cases the history is unknown after a few months.

No statement is made regarding deaths from the operation, and the inference is there were none. It is seen on comparing these few cases with Martin's that vaginal hysterectomy has the advantage of 10 per cent as

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regards recurrence, so far as time has determined, and the disadvantage of a mortality of 24 per cent in the grand total of operations reported, or about 18 per cent compared with Martin's own cases, against a mortality of nothing for vaginal hysterotomy.

The method employed by Baker and Koeberle is as follows: Artificial prolapse of the uterus is produced, the vagina is entirely separated in healthy tissues, and all bleeding points secured by cat-gut or cauterization. This dissection is carried up as high as necessary, keeping a safe distance toward the uterine tissue. The cervix is then amputated either perpendicularly or by wedge shaped excavation. The surface is then cauterized in all directions so that a complete wall of cauterized tissue presents. Tampons saturated with an antiseptic are then applied. Cicatrization is usually complete at the end of a month.

The methods employed in hysterectomy, while practically the Czerny, have in some details been modified and more especially in the after treatment of the wound. Schroeder first left off the tying of the broad ligaments in three portions and endeavored to accomplish exact peritoneal coaptation, with or without a drain. He practically accomplished the same in his uniting all the tissues in his union of the wound.

In 1880, Billroth broke loose entirely from this method and left the wound alone, and open, making five operations after this method. Olshausen followed, with his thirty-two operations during the next three years, the same method. Brunner in 1883, by statistics showed that up to that time the best results were from the open method.

Martin was the first to modify the open wound treatment. He united the peritoneum with the mucous membrane as perfectly as possible, thus closing the cellular tissue pertaining to the wound. Schatz added the omission of the drain. Fritsch completed the technique of the wound treatment by using the permanent tampon of iodoform gauze.

The results are as follows:

	Cases.	Mortality, Per Cent.
Schroeder's Method.....	76	27
Martin's "	95	20
Fritsch's "	81	12.5

Brenneke, the at present most radical exponent of the open method, has presented a series of 21 cases without a death. He adds glycerine to his iodoform tampons and credits the depleting agency of the glycerine with a large share of his success. The French seem to be favorable to the Pean's forceps, to the broad ligaments for twenty-four hours then removed. This of necessity makes an open-wound treatment. Outside of the leaders, so to speak, over one-half the work done has been by the open-wound method.

As to the question of how to do the operation, Martin has remarked, "It is irrelevant whether the uterus be removed by an incision made in front of, at the side of, or behind the neck. It is of little importance whether hemorrhage be prevented by stitches introduced before the incisions or whether each separate vessel be tied as it bleeds. It is immaterial whether the uterus be turned over or removed by drawing it down and freeing it; whether the opening in the floor of the pelvis remain open or be closed, or be drained either with iodoform gauze or with a tube." We may conclude from this that the three essentials are removal of the organ, control of the hemorrhage in the most speedy, easy and safe manner possible and the treatment of the wound by such a method as will insure the most perfect healing and antiseptic conditions.

At this point I desire to place on record a case giving the history, description of the conditions found, the operation and after treatment, with result, and give my reasons for the method used, and the treatment of the wound.

Mrs. H., married nine years, German, 42 years of age, mother of seven children, occupation housewife, menses regular, painless and normal in every respect during her life. Has never had any symptoms of disease of pelvis until shortly after getting up after the birth of her last child Dec. '85, when she suffered with pain in back when she assumed

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the erect position after sitting or reclining. She had never had any discharge from the vagina, save menstrual, until about May, '87. She then noticed a slight flow and supposed she had "the whites." This continued off and on to the time of her menstrual flow in Nov. 1887. During this period she suffered with severe menorrhagia, the first variation from the normal in her life. Menstruation continued regular, up to the time (Jan. 24,) that I saw her in consultation with Dr. Hypes, but the quantity was greatly increased, and she was compelled to take to bed at each period on account of the loss of blood.

About Jan. 10, '88, after coition she had a severe hemorrhage, and up to this time neither husband nor wife suspected any local disease. At this time a distinct odor was noticed from the discharge. General health became affected in Nov. '87, from the loss of blood with no material improvement between menses.

January 21, for the first time a physician, Dr. Hypes, was called in, who discovered the malignant condition present.

At my first examination, Jan. 24, '88, the following conditions were present:

The mobility of the uterus was slightly limited, the fundus free from all adhesions. There was on the posterior part of the cervix a mass as large as a goose-egg, which occupied the entire extent of the posterior surface of the cervix to the vaginal junction, the anterior lip presented nothing abnormal but a slight edema. The cervix bilaterally lacerated; the mucous membrane of the cavity of the cervix was apparently healthy; the left broad ligament in the lower part and close to the cervix was thickened or infiltrated and was somewhat sensitive; all other parts of the uterus and vagina were healthy.

It was agreed that extirpation be recommended, with the distinct understanding that the patient was in danger of dying on the table during the operation, also, after the operation from shock or blood poisoning, and that on account of the suspicious infiltration no great assurance could be held out that recurrence would not ultimately cause the death of the patient.

After these not very encouraging opinions were considered, we were notified in two weeks time that the patient was ready and willing to undergo the operation.

Previous to this a section of the growth was submitted to Drs. Luedeking and Bremer, for examination microscopically. Both kindly did so and reported that it was a pure epithelioma.

Evidently the progress of the disease was a rapid one, for in the month that passed from the time I first saw it to the time of the operation the changes had been marked and the anterior lip of the cervix had become affected. The operation was done Feb. 23, 1888, and with the assistance of Drs. Hypes, Dalton, Fry, Primm, Adams, Lemen and Harris of Indian Territory. It lasted one hour and fifteen minutes. The method pursued was as follows: First, the friable portion of the presenting mass was removed to give more room, and to avoid conveying any of it into the abdominal cavity, on the fingers. Next the opening of Douglas' cul-de-sac and uniting the peritoneal and mucous surface with a continuous catgut suture, ligation of lower half of both broad ligaments, by passing a needle through the vaginal wall laterally and up around the inferior uterine vessels down and out again near the point of entrance; hemorrhage being controlled, the anterior incision was made separating the uterus and bladder; then uniting the peritoneal and mucous membranes with continuous catgut sutures. Next, with the scissors the lateral tissues were divided up to the level of the lateral ligatures. Then a ligature was passed up and through the broad ligament of both sides as far out as possible, just below the Fallopian tubes, down and though forwards again just below the upper constriction of the lower ligatures. This controlled all hemorrhage.

The uterus, tubes and ovaries on the left side were now freed by cutting from below upward to the Fallopian tube and following this out until this side was entirely free. The op-

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posite side was treated likewise, all ligatures were cut short, a Martin's drainage tube, as large as the index finger, was now passed into position and the united peritoneal and mucous surfaces were united by the continuous catgut sutures so that the peritoneal surfaces were in apposition. This brought the line of incision so that it passed from side to side. The vagina was filled with iodoform, and an iodoform pad placed over the vulva and lower opening of the tube, held in place by a "T." bandage. The progress of the patient was steady and satisfactory, she suffered considerably from shock and nausea. The temperature rose to 101° on the 3rd and 6th days. The pulse on account of the decidedly nervous temperament was rapid, but of good quality, and it became necessary to use sedatives to give her sleep. At no time during her recovery was there any evidence of inflammation, or pain in the pelvis. The drainage tube was not removed until the 20th day on account of the free discharge. The question of recurrence cannot as yet be determined; from the conditions present in the broad ligament there is strong reason to fear that it will take place.

Bichloride 1:5000 injections were used after the first week.

The points we wish to call attention to are the following: Considering our knowledge of cell-life gained from the process of grafting, it is not too much to assume that particles of a malignant growth may be deposited during an operation on the healthy surface of the wound or peritoneum, and that they may retain their vitality, forming a starting point from which a recurrence of the tumor takes place.

This fact may account for recurrence in these cases where we have to all intents and purposes removed the entire malignant tissue, where the precaution is not taken of at first removing and thoroughly washing away all of the presenting malignant growth that is at all liable to be dislocated. In our opinion such a precaution should always be taken and it should be done as perfectly as possible. The method we used in separating the uterus and appendages, was followed for the simple reason that it was the most convenient and, as Martin has remarked, "it is immaterial whether we bring the fundus out of Douglas' cul-de-sac or anteriorly or pull it down." The easiest way is the best way. Each case is a law unto itself. In the treatment of the the wound we practically used the closed, or what seems to us the natural one. In all the discussion on this part of the subject and in the steps made the statistics plainly show that the same laws hold good here as in all other operations in which the peritoneal cavity is concerned. Examine the results in ovariotomy, cesarsan section, abdominal hysterotomy, in gastrotomy and all operations on the abdominal contents, and the conviction is impressed upon the mind that closure of the cavity or apposition of all severed peritoneal surfaces is the surest and safest method yet evolved. This practice with the use of antiseptics or perfect cleanliness is nature's method, and it is one of those things that no fellow can find out, that it has taken the profession so long to perceive it. Schroeder, Billroth, Martin, Fritsch and Brennecke are the methods of to day for kolpohysterectomy and with all the apparent differences, when it comes to the actual practical side there is only one important difference and this is in the closing of the cellular tissue pertaining to the wound by uniting the peritoneal and mucous surfaces all around the wound. That this union is not perfect at the stumps of the broad ligaments is manifest, but the constriction of the ligatures practically accomplishes it. With the simple open method, as a matter of fact, as a rule, the conditions present become such that there is almost a complete closure by the natural falling together of the edges of the wound so that if the antiseptic plug is not pushed too far up and is not too large, a closed wound is the almost uniform result. Herein does nature protect and protest against the meddlesome plug. In the union of the peritoneal and mucous surface we are acting in the direction pointed out by nature and our experience in other work in the peritoneal cavity. Here

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also, if our plugs are not too high up and too large, nature will in most cases close the wound for us by a natural apposition of the wound edges and prolapse of intestines. A step further, and bringing the peritoneal surfaces together by a continuous suture and we also assist nature,or do that which she will generally do for us and produce the closed peritoneal cavity. Thus much done and no bugs having got in while we have been doing it, and no secretions or discharges to come away and we have learned the lesson taught by our experience. But the ragged and at times extensive surfaces of the broad ligament stumps, and the fact that this site is the collecting point of secretions and one of the first points to feel the influences of lowered vitality would seem to demand a modification, and this is the use of the drainage tube. In all operations in the peritoneal cavity, experience has taught us that where extensive or moderate denudation or loss of peritoneal covering and influence of age, or a lowered vitality exist, drainage is necessary, that where a perfect peritoneal covering can be made, the drainage tube is not best; hence for these reasons the drainage tube would seem to be demanded.

My work on cadavers to test the truth of these opinions has only served to establish them more firmly and led to my adopting this method in practice. There is also another thought that would seem in some cases at least to make the drainage tube desirable. We have accepted as the truth that the stumps treated by the intra-peritoneal method do not lose their, vitality, but are preserved that the lymph and plastic exudate that covers them accounts for this, and prevents gangrene. If this is the cause or the cause be the prevention of morbific germs to the distal part of the stump, the use of the drainage tube in hysterectomy can be made and is, the means by which much more tissue, which may contain cancer cells, can be got rid of and thereby add this much more surely to a complete removal of the disease.

With the drainage tube we can hope that a part of the stump distal to the ligature will lose its vitality, and by process of death, liquefaction and disintegration be got rid of.

Such are my reasons for the use of the drainage tube in the case reported,and account for my leaving it in situ so long. I left it until the discharge had about ceased.

I wish to offer in conclusion one thought which does not seem to be taken into consideration, and which offers an additional reason why we should resort to hysterectomy instead of hysterotomy. If there is anything in heredity, local irritation and congestion as etiological factors in the development of carcinoma, hysterectomy is surely a step farther toward a cessation of these influences than hysterotomy, and the removal of the tube and ovaries is a still speedier one than when they are left. No one will deny,I think, that if we leave a part of the uterus and appendages, or remove the uterus and not the appendages, the conditions for a decreased blood supply and cessation of irritation are not produced to near the extent that it is when the operation is complete.

While giving to laceration of the cervix pronounced agency in being the apparent cause of carcinoma, I am not as yet prepared to say that a laceration can of itself be the cause of a cancer, rather the contrary; hence heredity or constitutional conditions to my mind must be considered. With a partial removal of the uterus menstruation is not interfered with,and the "change of life" is not accomplished. Again carcinoma is more prone to manifest itself shortly before or during the time at which the change of life occurs and the resulting scars may be the cause of a persistence of the function by being the source of irritation. The uterus is a favorite site for malignant disease and a patient who has once had the devolopment of carcinoma in this tissue may be afflicted again, if any of the uterus is left and especially in a mutilated condition.

These considerations would seem to demand a more radical measure of relief than hysterotomy or hysterectomy without removal of the appendages, if we would put a stop to those influences and conditions which seem to play an important part in the etiology of carcinoma uteri. I therefore am an advocate of the radical operation, uterus, tube and ovaries when possible, and believe that justice charity and humanity call for its being classed as a proper and justifiable operation.

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THE PHYSIOLOGICAL ACTIONS OF ACONITUM FISCHERI.

BY ALFRED E. BRADLEY, M. D., ST. LOUIS.

PREFACE.

This research is based upon original experimental investigation, conducted in the laboratory of experimental therapeutics of Jefferson Medical College, under the direct supervision and instructions of Dr. A. P. Brubaker; to his kindly teaching and assistance I am much indebted.

As books of reference, I have resorted to Ott's "Action of Drugs," Herman's "Experimental Pharmacology," and have also gleaned some interesting knowledge from Smith's "Actions of Sanguinarina," *Amer. Jour. Med. Sci.*, Oct. 1876.

I am especially indebted to Hermann's work for its description of the manner of conducting several experiments, which experiments I have embodied in my research.

I do not claim to have exhausted the investigation herein undertaken, but I do believe I have made great and valuable additions to the knowledge we already possessed concerning this interesting drug.

Philadelphia, Feb., 1887.

The aconite employed in the following experiments is a solution of *aconitum fischeri* having the strength of the official tincture of *aconitum napellus*. It was prepared by Lloyd Bros., of Cincinnati, was furnished me by Prof. Bartholow, and at his suggestion the following research has resulted.

In justice to myself be it known that it is very hard to obtain, and the small amount furnished me proved inadequate to make the investigation a perfectly complete one. In spite of all efforts on my part, it has been impossible to obtain more of the drug, even from the best pharmaceutical houses in the country.

As no study of the drug can be considered complete unless some attempt has been made to discover its physiological antagonist, it was my purpose to conduct a series of experiments with that object in view, but the untimely exhaustion of the preparation at hand prevented my so doing.

The conclusions which I will present are those drawn and derived from 81 experiments made on rabbits, frogs, cats and my own person.

In pursuing the investigations described in this article, the object throughout has been to thoroughly and carefully study and locate the action of the drug in question, toward which end only recognized methods of procedure and experimenting have been used.

In order to attain this end, after a number of experiments to determine the general effect of the drug by simple administration, the attempt is made to isolate individual organs and structures, which from general effects, we suppose to be especially affected in the systemic action of the drug. This can be accomplished in two methods: we can confine the poison to an organ, and then expect the effects, which we suppose due to the general action of the drug, to be aggravated;—or, we can prevent the poisoned blood from reaching the organ, or parts, and then, if the results, which we suppose are the effect of the drug on the organs, be absent, we can conclude that they must have been produced by its action. By carefully pursuing such a plan we can arrive at definite and perfect conclusions; whereas the deductions drawn from simply observing general effects, must, at best, be merely conjectural.

But as a knowledge of general effects is indispensable, it is always well to begin the investigation of any drug's action by a number of experiments with that end in view.

Having made several experiments as to this general effect, I give the following as examples, and as others merely corroborate the same, I deem it unnecessary to weary the reader by their description.

EXPERIMENT 1. Frog, medium size, was given ♏xx *aconit. fisch.* and turned loose in jar. In a short time its movements became markedly incoordinated; in moving from side to side the loss of motion is plainly evident, and at intervals certain slight spasmodic ef-

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forts of irregular character are to be seen; there is an inability to maintain the natural posture, the posterior limbs being first affected. The animal responds to irritation in a manner, however, necessarily limited by the paralysis, or paresis; in course of a short time these reflexes become diminished in force and more difficult of production;—entire muscular system becomes useless, and the animal lies paralyzed.

Fibrillary contractions of muscles can be elicited by light tappings,even after paralysis is complete, which follows in twenty minutes after administration of the drug. The pupils are noticed to be widely dilated.

EXPERIMENT 2. Rabbit; weight, 4 pounds, jugular vein exposed in situ, and ♏x of the poison injected toward the heart. Respiratory movements almost immediately became much oppressed and labored, to be followed by convulsions, probably due to carbonic acid gas poisoning. Within four minutes, death was produced through failure of respiration.

The chest was then opened and the heart found to be beating, wildly and tumultuously, its rhythm being very irregular; the auricular and ventricular pulsations are not synchronous,and each occurs with varying frequency. Stimulations of the pneumogastric by a strong Faradic current failed in any way to modify the cardiac movements. Same stimulation applied to intra-auricular septum, inhibitory ganglion, also failed to elicit response. Heart beats continued for fifteen minutes and then ceased.

EXPERIMENT 3. Cat; weight 4½ pounds.

11:05 A. M. Injected by hypodermatic syringe ♏xxx, into abdomen, and gave animal its liberty.

11:10. Pupils dilating,—uneasiness—slight nausea and depression.

11:25. ♏xxx repeated, into abdomen as before.

11:30. Nausea, emesis—anxious expression—urination—difficulty in locomotion; posterior limbs first affected—pupils widely dilated.

11:35. Incoordination; locomotion almost impossible.

11:45. Convulsive movements, accompanied by a scream;—at end of each seizure, animal assumes any position in which it may chance to alight;—at times movements almost tetanoid in character; nausea and emesis with great depression occur at short intervals; respiration slow and gasping, labored and prolonged. Death ensues from asphyxia due to respiratory failure, at 11:55.

Chest opened; heart beating rapidly, and with great irregularity, soon to cease. Pupils so widely dilated as to render it difficult to discern the iris.

EXPERIMENT 4. Cat, medium size. Injected hypodermically ℥j of *aconitum fischeri*.

All effects previously observed in other experiments speedily produced; namely, nausea and vomiting, dilatation of pupils, slowing of respirations, distress and great depression, occasional urination, incoordination, all to be followed by asphyxic convulsions and death by respiratory failure in the course of fifteen minutes.

Chest opened; heart beating rapidly, and whole venous system much enlarged. Heart stops during or in diastole. Excepting venous congestion no post-mortem lesions were to be seen.

EXPERIMENT 5. Frog; medium size.

10:35. Injected ♏xx of the poison into abdominal sac.

10:45. Uneasiness—retching and gagging—beginning incoordination.

10:50. Paralysis coming on, pupils dilating, animal torpid, reflex movements produced with difficulty.

10:55. Animal paralyzed, sensation apparently not lost, and response elicited as long as power of motion remained. On exposing the heart it was found to be pulsating feebly and to gradually fail, until one and one-half hours after administration of drug, it beats only about six times per minute.

In looking over these general experiments, the powerful action of *aconitum fischeri* becomes very plainly seen. Its most prominent effect seems to be its remarkable action on the respiratory apparatus, and the rapidity

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with which it causes death by failure of the same.

Depression, nausea and vomiting are found to precede this action, as does also a marked loss of coordination, followed by paralysis. In many instances, especially in warm blooded animals violent convulsions chronic in character make their appearance just prior to death; but these are probably due to the asphyxiated condition caused by respiratory failure, and not by a direct impression on the nervous structures presiding over and controlling those parts concerned in convulsive phenomena.

Adynamia, one of the prominent features of its poisonous action, may be caused, by a paralysis, or impairment of function, of motor or sensory nerves, by action on the muscular tissue, or by direct action on the spinal cord.

Let us now proceed to take up each of these structures respectively, and ascertain the effects, as we may localize its action to these different parts. To follow these experiments will be observations on blood pressure, circulation respiration and such other points for consideration and inspection as may arise or be presented as we proceed.

ACTION ON MOTOR NERVES.

We have found that the drug in question causes a loss of motion. For a moment let us assume that its action is on the motor nerves; and sensory nerves, centers, and muscles remain unaffected. Such being the case, if we can cut off the poison supplied to the nerve, or nerve ending, we ought to prevent the drug's action on that particular part.

This can be accomplished by the method of Bernard, familiar to all experimenters, which consists in ligating the vessels of the extremity, or better, casting a ligature around all the structures, being careful first to exclude the sciatic nerve. By this means we can effectually prevent the poison from coming in contact with, or acting upon, any of the tissues of that extremity.

Then by comparing the irritability of the nerve below the ligature, with the one of the opposite side which has been allowed to receive the poison, we can arrive at definite reliable results, and ascertain whether the function, in this instance, of the motor nerve, has in any way been altered. The instrument used for irritation is that known as the Dubois Raymond induction apparatus, and the strength of the irritation ascertained by the scale graduated in centimeters denoting the distance of secondary, from the primary coil.

Numerous experiments like the following were made, but as each only confirmed the results reached in the others, I only submit these for consideration.

EXPERIMENT 1. Frog, medium size, the sciatic of one limb exposed, and its remaining structures ligated, as described above. Gave ♏xx. In twenty minutes the characteristic paralytic effects of the drug became well marked. The electrodes connected with the Dubois-Raymond apparatus are now applied to the nerve trunk of each extremity, with the following result:

P. is poisoned side; U. is unpoisoned, ligated side. The figures denote the greatest distance between the two coils at which a muscular contraction could be induced.

TIME.	P.	U.
10:50	20 c.	25 c.
11:05	25 c.	30 c.

EXPERIMENT 2. Frog, medium size, prepared as in preceding experiment. Gave ♏x. After characteristic effects, proceeded as before.

TIME.	P.	U.
9:45	50 c.	47 c.
10:10	35 c.	40 c.

EXPERIMENT 3. Frog, prepared as before.

TIME.	P.	U.
3:30 (before drug)	30 c.	30 c.
3:35 Gave ♏vii		
3:55	40 c.	40 c.
4:00	20 c.	40 c.
4:15	20 c.	37 c.
4:25	29 c.	33 c.
4:50	15 c.	31 c.

Observation ceased.

Those and many other similar experiments show that any action *aconitum fischeri* may have on the function of motor nerves is very uncertian and at times entirely wanting.

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Hence we can conclude that if it have any effect at all on this structure, it is simply one which causes an impairment, and that very slight, of its property of conduction.

Here the question might arise, and justly, "Does not the occasional lessened response belong to muscle instead of nerve; or in other words, is it not the action of the drug on the muscle instead of on the nerve which supplies that muscle, that gives us the above tabulated results?"

To elucidate this question we will now proceed to investigate the action of *aconitum fischeri* on muscular tissue.

ACTION ON MUSCULAR TISSUE.

I have proven by several experiments the following, and submit the same as evidence.

EXPERIMENTS 1, 2, 3, 4, and others, frogs all of medium size, sciatic exposed and leg ligated as described by Bernard and noted in my previous experiments.

Introduced into the abdominal sac the drug, varying in each instance from ♏xv to ♏xxx. In all the following results were noted, the time required for the drug's action varying with the size of the dose.

In each case after the effect of the poison was fully accomplished, as manifested by paralysis, the gastrocnemius of each leg was exposed and the muscle itself was irritated by the electrodes connected with the Dubois-Raymond apparatus.

In all these experiments, without exception, the poisoned side responded with the same energy and readiness as did the unpoisoned or ligated side. The strength of current in each instance, was, usually, that given when the secondary coil was 30 c. from the primary. This was the weakest current which could induce contraction.

EXPERIMENT 5. Frog, medium size. Right leg ligated, sciatic nerve being excluded, and ♏v of the poison injected into the leg external to the ligature. Fibrillary muscular contractions follow, toes become widely separated, and frog is seen to twitch as if in pain. After a period of forty minutes, irritation, electrical stimulation, is applied to the trunk of each nerve. A contraction is as readily produced in the ligated poisoned extremity, as in that which has received no poison.

EXPERIMENT 6. Frog, medium size, medulla divided, sciatic of one extremity isolated and parts ligated, all other parts being left intact.

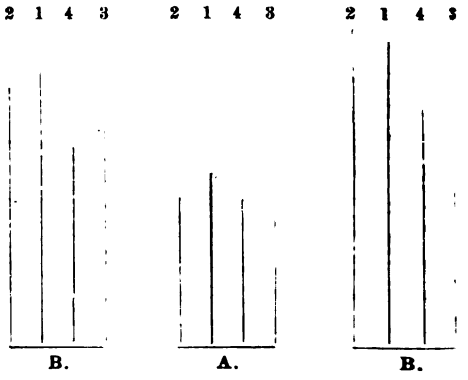
10:20 Injected ♏vii of the poison into abdominal sac.

11:10 characteristic systemic effects produced. Pflueger's myograph used for experiment which follows.

The gastrocnemius is dissected up from the tibia, but its attachment with the lower end of the femur remains untouched. As much of the sciatic nerve is left with the muscle as is possible.

The femur is held in a clamp of the apparatus, and the muscle allowed to hang dependent; in its tendon is inserted a wire, which holds a weight of 15 grams, and which is connected with the recording lever, which marks the tracing. (This is a brief description of the so-called "nerve-muscle preparation.")

I now call attention to the accompanying tracing, which resulted from this experiment, which compares the traces produced by the poisoned and non-poisoned sides, upon electrical stimulation.



A is the trace produced by the unpoisone muscle preparation; B and B by the poisoned 2 and 1 are respectively opening and closin contractions resulting from application of th electrodes to the nerve trunk: 4 and 3 a respectively opening and closing contraction

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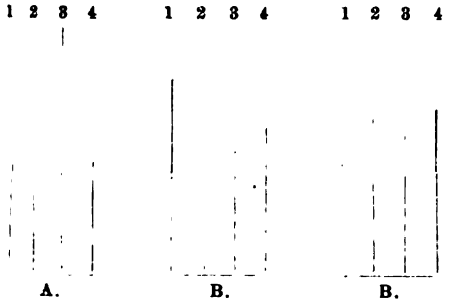
resulting from application of electrodes directly to the muscles.

EXPERIMENT 7. Frog, prepared as in preceding.

10:05. Injected ♏vii *aconitum fischeri* into abdominal cavity.

11:35. Systemic effects produced; nerve-muscle preparation arranged in Pflueger's apparatus as before.

The accompanying trace shows result. A, normal preparation, trace: B and B the poisoned. 1 and 2 are respectively the traces produced by opening and closing contractions, the electrodes being applied to the muscles: 3 and 4 respectively those resulting from opening and closing contractions, the electrodes being applied to the nerve trunk.



From this it appears as if the conductivity of the motor nerves was impaired, which corroborates the conclusions reached while experimenting on those structures and herein previously described. Muscular irritability, energy, and force of contraction, remain undiminished.

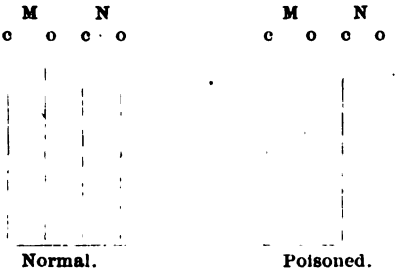
EXPERIMENT 8. Frog prepared as in preceding experiment.

10:40 Administered ♏viii of the poison by hypodermic injection. Systemic action of drug produced, and nerve muscle preparation attached to Pflueger's myograph as before described. The inserted tracing shows the result.

M—tracing produced by contractions, electrodes being applied to muscle.

N—when applied directly to nerve trunk. C, the closing and O, the opening contraction in each instance.

By this trace it can be plainly seen that the muscles are in no ways affected in the systemic action of *aconitum fischeri*.



EXPERIMENT 9. Tested muscular irritability after immersion of muscles. Gastrocnemii of a medium sized frog were dissected out with care, one placed in a solution of ♏xv *acon. fisch.*, to ℥i of distilled water; and the other in pure distilled water.

When the muscle was dropped in the solution of the poison, it underwent repeated spasmodic contractions, lasting for about 30 seconds before it came to rest. The following shows result of stimulation at intervals by means of the Dubois-Raymond induction apparatus.

Time.	P	U
11:00	30 c.	30 c.
11:05	25 c.	25 c.
11:10	25 c.	30 c.

(Here the poisoned muscle was noticed to remain for several seconds in a tetanoid contraction after its stimulation, and then revert to its original condition. Same contraction as noted at 11:25.)

Time.	P.	U.
11:25	25 c.	30 c.
11:30	30 c.	30 c.
11:45	5 c.	30 c.
11:50	No response.	30 c.

Thus it will be seen that the muscle in a solution of the poison responded actively for forty minutes, and then suddenly ceased. It was noticed to have become shrivelled, and diminished in bulk; I can offer no explanation.

Probably the contractions produced by dropping the muscle into the solution, are identical with the fibrillar contractions noted in expt. V., after injections of poison into tissues of the extremity.

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Allow me to quote "Hermann's Experimental Pharmacology," translated by Smith, as follows:

"Since most poisons must be used in the form of a solution, and since all solvents, even distilled water, are irritating to muscles, the direct immersion of a muscle in a solution of a poison is a doubtful experiment." Hence I am justified in considering the result in the above experiment a doubtful one.

In summing up, *aconitum fischeri* when introduced into the system has no effect on muscular tissue. This being established we can re-affirm the conclusions drawn from experiments on the motor nerves, without regard to its action on muscular tissue.

ACTION ON SENSORY NERVES.

In my experiments studying the action of *aconitum fischeri* on sensory nerves, I have resorted to several methods and modes of procedure, no one of which could be alone conclusive, because of the great difficulty experienced in arriving at any thing definite regarding action of poison on this portion of the organism. However, I think by combining the results attained in all, I am able to present decisive conclusions.

EXPERIMENT 1. Frog—medulla divided, sciatic of one side exposed—limb ligated excluding the nerve. By this means the terminal filaments or end-organs of the sensory nerves of that side are prevented from receiving the poison, when introduced into the abdominal sac, in its systemic circulation.

Injected into abdominal sac ♏x *acon. fisch.*

In thirty minutes irritation by dilute sulphuric acid applied to the integument readily elicited contraction, or response, on the unpoisoned, or ligated side, while the application of the pure acid failed to produce like response from the side which had been allowed to receive the poison. After a time, however, both sides fail to respond, no doubt due to an after effect on the cord.

EXPERIMENT 2. Frog prepared as in preceeding expt. ♏xv of the poison administered. After lapse of 20 minutes poisoned extremity fails to respond to irritation, which easily throws the unpoisoned, ligated leg into action; both sides however soon fail to respond, as in preceding expt. Numerous experiments like these verify and corroborate the above, and it is needless to here make what would be merely a repetition were I to describe them.

From these alone it appears that the sensory nerves are affected in their power to conduct peripheral impressions to the sensorium.

But to proceed:

EXPERIMENT 3. Frog, medium size, medulla intact, otherwise prepared as the preceding. Irritation produced by acetic acid.

The following table will show results: response in seconds.

Time.	L. leg.	R. leg.
11:15	5	4
11:20	5	4
Injected ♏v of drug external to ligature, followed by fibrillar spasms.		
11:30	4	60
11:35	3	36
11:40	5	80 +
11:45	4	none.

Nerves of both sides were then stimulated in the thigh; muscles of each side respond. By central irritation of nerve of right leg general contractions and convulsions ensued; this shows drug injected locally had no effect on nerve trunk; hence its action in this case must have been on sensory nerve end-organs.

EXPERIMENT 4. Frog. Right sciatic exposed and leg ligated. Sensation tested by irritation with weak solution of sulphuric acid, time for response ascertained by metronome beating seconds.

Time.	R. leg.	L. leg.
10:40	8	8
Injected ♏iii *acon. fisch.* into abdominal cavity.		
10:45	8	9
10:50	10	18
11:10	12	20
11:30	37	no response.

At 11:50 the right leg also ceased to respond. It will be seen that the side which was allowed to receive the poison was the first to cease to respond. In time, however,

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no response could be elicited from either side.

EXPERIMENT 5. Frog. Medulla divided. Right sciatic exposed and leg ligated. Peripheral irritation employed by means of acetic acid.

Time.	R. leg.	L. leg.
2:50	2 sec.	4 sec.
Injected ♏x *acon. fisch.* into abdominal sac.		
3:10	4	10
3:20	6	20
3:30	10	no response.

At 3:36 no response from right leg. Forward legs respond to acid after other parts fail to do so.

Sciatics (nerves) of both sides are now taken up in the thigh, divided, and central end is stimulated by faradism. Right leg, unpoisoned, gives response to weak as well as strong faradic currents, and the reflex general contractions which follow show that the impulse is conveyed to cord and then reflected out.

The nerve of the left, or poisoned, side by irritation causes contractions on same side, but the most powerful current fails to produce reflex contractions. This shows the sensory nerve fails to conduct impressions to the cord; if not really paralyzed, it bespeaks of impaired conductivity, at least.

This experiment is, by Smith, considered the one which furnishes most valuable results, and it is the most reliable in its demonstration. He explains its intimate workings as follows: "Suppose the ganglia are unaffected; if the sensory nerves are also unaffected the central irritability of skin and sciatics should be equal; because, even if the spinal centers are weakened, an irritation of the skin and central end of the sciatic on one side, which would produce reflex movement on the opposite side, should, when applied to the opposite side, produce a similar result, if the conducting power of the two sciatics remains the same. Suppose now the drug in question should paralyze the sensory nerves, then an excitation of the skin and central sciatic on the poisoned side would cause no reflex motion on the opposite side, because the stimulation would fail to reach the cord, while irritation of the nerve which had not been reached by the poison would cause motion in the opposite limb."

I consider this explanation well applicable to the experiments which it follows.

EXPERIMENT 6, 7. These experiments were performed on my own person, and as the result was the same in each instance, I describe them together.

About ♏ii of *aconitum fischeri* were injected into the subcutaneous tissues of the leg in one instance and of the forearm in the other. Almost immediately I experienced a feeling of great tension in the part near the puncture, which was followed by intense pain. The parts became discolored and of a mottled appearance which lasted for twenty-four hours. This discoloration radiated, as did the pain, from the point of puncture to from two to four inches into the surrounding tissues. Upon the application of points to the surface it was noticed that a slight degree of anesthesia had been effected, in that the points could be more readily recognized outside of the area of influence than within it. This effect came on about thirty minutes after the introduction of the drug, and persisted for about an hour.

No unpleasant after results were experienced in either case. After effects of drug were over, the sensation of the parts returned to normal.

EXPERIMENTS 8 and others. Applied a few drops of the poison to my tongue. In about half an hour the characteristic tingling of the aconites became most marked and persisted from two to three hours. Upon applying the points of the esthesiometer to the surface of the tongue, no diminution of the sensibility could be detected. This experiment was repeated several times, and in each instance the same effects were noted.

I think, upon perusal of the foregoing experiments on the sensory apparatus, I am justified in announcing the following conclusions: that

Aconitum fischeri in its systemic effects on the organism is a paralyzer of the sensory ap-

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paratus. It acts first on the end-organs of the sensory nerves, afterward on the nerve trunk, and lastly on the nerve centers in the cord. That this action precedes its effects on motor nerves. That when brought directly in contact with the sensory nerve ends, it impairs or destroys, for a time at least, the functions of those parts. (Experiment 3.) That its action on the posterior extremities precedes the action on the anterior.

[TO BE CONCLUDED.]

TRACHEOTOMY IN MORPHINE POISONING.

BY BRANSFORD LEWIS, M. D.,
Assistant Superintendent of City Hospital.

Read before the St. Louis Medical Society, March 00, 1888.

About four months ago, I read in the REVIEW, a short account of the resuscitation of a physician of Vienna, from opium narcosis by means of tracheotomy and forced respiration with a bellows. It seemed to me to be a rational and feasible procedure, and I determined to try it, should the opportunity present itself.

On the afternoon of March 11, 1888, a young man was brought to the city hospital in an unconscious condition. It was reported that about an hour previously, in ending up a debauch, he had taken an ounce of laudanum with suicidal intent.

His condition then was bad; cyanosis was marked, the pulse was proportionally weak; and respiration, already shallow, was rendered difficult by the accumulating mucus in the trachea. The pupils were minutely contracted and immobile; extremities cold. The treatment usually carried out in the hospital in such cases was adopted; one hundredth of a grain of atropia, and several syringefuls of whisky were administered subcutaneously, the syphon-tube was passed into the stomach and that organ was repeatedly washed out, at first with water, afterward with strong coffee. The flagging respiration was stimulated by douches of cold and hot water alternately dashed over his chest, and to the same end the Faradic current for a time seemed to be of benefit. But notwithstanding our efforts, narcosis became more profound; cyanosis was intensified to a degree which I have seldom seen, and efforts at respiration on his part ceased entirely, so that artificial respiration was substituted, effectually at first, with much less success afterwards. It became evident that unless something radical were done—and that, too, immediately—the patient could not last. And I bethought me of the bellows method. The patient was hastily removed to the amphitheatre, where, with the kind permission of our superintendent, Dr. H. C. Dalton, I performed tracheotomy as rapidly as possible, during which only a gasp was taken now and then, probably two or three to the minute. On separating the severed cricoid, a deep inspiration was followed as is usually the case at this stage of a tracheotomy, by a considerable interval of quietude. We were about to insert the tube connected with the bellows when a second gasp produced such a shock on the bronchi by the direct impact of cold air on their mucous surface, that violent coughing was set up, expelling with each spasmodic expiration, mucus which had collected in the trachea to a considerable amount. By this means that tube was soon cleared of its contents. Coincident with the violent coughing, of course, deep inspirations were taken—just the object aimed at, though attained in an unexpected manner, without the use of the bellows: change for the better began almost immediately. The dark purple countenance gradually paled under the more vigorous action of the heart—however paradoxical that may appear, at first thought—and efforts to speak evidenced returning consciousness. A piece of moist gauze placed over the tube, acted as a filter to the inspired air. Injections of stimulants—whisky and ether—were continued at intervals, and another hundredth of a grain of atropia was given, after which the patient was removed to his bed and subjected to frequent and vigorous stirring up when respiration was inclined to flag—and it was so inclined for the next several hours.

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leep was not prevented, and he was soon rapped in its soothing embrace.

On the following morning the tube was ith-drawn and the incised membrane and rtilage were sutured, the rest of the wound eing allowed to granulate.

I should like to be able to close the record f this case *a la mode* with the statement that ecovery followed without a bad symptom, ut I am prevented from doing that by the ct that four days after his entrance into the ospital, the patient became subject to elirium tremens, from which he died irty-six hours later. The presence of neumonia or other complication of that ort was definitely excluded by post-mortem xamination.

It may be suggested that possibly the pa- ient might have recovered even after several toppages of natural respiration such as the one which precipitated the operation, ordi- nary methods of artificial respiration being employed. I, too, believe that *possible*—but not probable, a fact but too often demon- strated in cases of that kind. I have seen not a few patients with vastly less cyanosis, with at times stronger pulse and more vigor- us respiration, succumb under the continued se of that treatment.

And the procedure could add no complica- ion to the already critical situation; on the ontrary, it could only be of benefit, by allow- ng a free vent for the cause of that ominous ign, the tracheal rale, and by shortening and implifying the channel of communication be- ween the lungs and that all powerful life- iver "fresh air." As hinted at above, the irect influx of unwarmed air would seem to e no mean factor in conducing to the desired nd. Should respiration not be reestablished, r fail after its repeated reestablishment, it would be easy enough to insert into the racheal tube, a tube connected with a bel- ows, by which the lungs could be forced into ctivity as long as desirable.

In searching for literature on the subject, the *Index Medicus* directed me to only one article refering to it, that of Dr. G. E. Fell, in the *Buffalo Medical and Surgical Journal* for November, 1887. In it the author reports the successful treatment by means of forced respiration with bellows etc., of a patient who had been poisoned by morphine for a longer time than the one to which I have called your attention. The narcotism in the former case seems to have pursued a course not so rapid as that of the latter. The ap- paratus used was the one usually employed in the doctor's physiological laboratory in the performance of artificial respiration on dogs. The operation was done on July 24, 1887, prior to the one performed at Vienna, and was therefore, so far as known, the first on record. Since then, Dr. Fell has used the treatment with success in two cases, both of which required the prolonged exercise of forced respiration.

In view of the results of the hospital case I believe that in morphine poisoning, where other means fail, even though it be impossi- ble, on account of the lack of apparatus, to supplement it with bellows respiration, trach- eotomy is a wise and justifiable measure.

SPECIAL COMMITTEE TO REPORT AT THE CINCINNATI MEETING OF THE AMERICAN MEDICAL ASSOCIATION.—As appears from the programme of the general sessions, published last week, there are three special committees, in addition to the standing committees, to re- port at the next meeting of the American Medical Association. The membership of these special committees is as follows: Com- mittee on Feticide, and Measures for its Pre- vention, I. N. Quimby, of New Jersey; W. B. Atkinson, of Pennsylvania; W. H. Byford, of Illinois. Committee on Duties Commonly Exercised by Coroners, H. O. Marcy, of Massachusetts; J. H. Burge, of New York; W. W. Dawson, of Ohio. Committee on Dietetics, E. A. Wood, of Pittsburg, J. T. Whittaker, of Cincinnati, and F. Woodbury, of Philadelphia.

THE Association of American Medical Edi- tors will have its headquarters at the Burnett House, during the meeting of the American Medical Association, at Cincinnati in May.

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J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, APRIL 14, 1888.

A NEW ERA.

Those who are observant of professional affairs will admit that there has been great progress made in medical science in the West during the past decade. Many of our best colleges, most influential journals and leading associations are now found in states to which a few years since, the adventurous Eastern graduate came as a pioneer.

In this advance, we are proud of the progress made by the physicians of our own state. That great progress has been made, one need look at the proceedings of our State Association for 1877 when it met in Kansas City, and the programme for the meeting this week in the same city.

We would not reflect upon the honored names who led the van in those not very remote days, but truly the leaders were few. Now every town has its expert surgeon and gynecologist as well as its well informed general practitioner, while each of our larger cities has its full array of specialists, and several completely manned colleges. Then we had but one or two medical journals in our state; now half a score published in Missouri furnish the current news of the medical world to the thousands who are enterprising enough to take them.

As members of the profession of a great state there are many things required of us who have the burden of responsibility upon us.

1. Our State Medical Society must be kept up. It is a matter for congratulation that there now exists no element of discord, no selfish clique, no party spirit, but that now as never before, men from all over the state are ready to unite in making this association second to none in our country.

And it can be done. Already it is being accompliahed. True we will not have Hodgen or McDowell or Lester, but these giants have set the pace and we cannot afford to be laggards. As a rule the truly progressive physician will be found enrolled and active in his state society.

2. We should send larger delegations to our National Association. Character and dignity comes to the profession of a state largely through the men who are chosen to represent it. Just now the American Medical Association needs the best support that can be given it. Victorious in days gone by, growing in numbers and influence rapidly, it still needs calm judgment and wise counsel to secure to it the best possible advantage in work and management. New sections are being added, and changes in its government are under advisement. Our state society should send good men and a full representation to the next meeting.

3. Our State Board of Health needs help. Unfortunately it seemed that when the profession of the state secured the legal enactment which provided for the board, the interest died away, the appropriation soon ceased and our present board is stranded upon the sands of impecuniousness, while the quacks rejoice and the advertising harlequin flourishes.

Let our State Association take hold of this matter and once more with a good pull altogether and with the aid of past experience get things into better shape.

4. The scientific work of the association must be kept up. It is a good move made by the present committee on scientific communications that all papers must be limited to twenty minutes. This with good ruling by the chair, will enable great work to be done during the three days of meeting. It may not be amiss to say that many of the papers

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read before our association have commanded marked attention throughout the scientific world and this alone should be a strong incentive to future work.

Let us all begin earnest and, encouraged by the past, labor harder and more intelligently in the future. The highest honor will be his who writes the best paper or does the best work.

Thus will our State Association keep its proper place and thus will come, nay, has come the "New Era."

WILLIAM PORTER.

PREVENTION OF OPHTHALMIA NEONATORUM.

In no class of cases is the adoption of aseptic principles more surely demanded than in midwifery. Purulent ophthalmia in new born infants, is due to infection of the conjunctiva by vaginal secretion, either during delivery or thereafter. Many suppose that the disease is produced only by gonorrheal infection, but on the contrary, by far the greatest number of cases owe their origin to a simple leucorrheal discharge.

Dr. Bell, of London, recently stated that seventy-two per cent. of the blind of England were so from this perfectly preventable condition. The statistics of this country do not vary materially from those of England. This places a heavy responsibility upon midwifery attendants.

In every case, when practicable, the vagina should be thoroughly cleansed, with a warm weak antiseptic solution, during the first stage of labor.

The second stage is usually preceded by a pouring out of ropy mucus by the vaginal and vulval glands which serves to lubricate the canal, and this mucus should not be washed away.

After the delivery, while dressing the infant, great care should be taken to cleanse the eye-lids, and conjunctival cul de-sac. For the latter purpose a solution of nitrate of silver (grs. i to ℥i of water), or carbolic acid (1—60) should be used.

Unfortunately, midwives and untrained nurses consider themselves fully competent to treat these cases. Bathing the lids with a little breast milk, catnip tea, or Pond's Extract is in their opinion quite sufficient.

During the first ten days succeeding the delivery, the physician should at each visit, insist upon seeing the infant that he may assure himself that its eyes are all right.

IODIDE OF POTASSIUM IN OPHTHALMIC PRACTICE.

It is well known that many diseases of the eye are of syphilitic origin. Interstitial keratitis is pathognomonic of hereditary syphilis and idiopathic plastic iritis is due in the majority of cases to the acquired form of the disease. It is quite a universal practice among physicians to rely upon mercury alone to reduce all local inflammations of supposed specific origin. Now we believe that in some cases constitutional syphilis may be entirely eradicated from the system, and that the use of mercury is essential to the accomplishment of this result. But for the reduction of certain local manifestations, such as plastic iritis, gumma of the iris, and paralysis of the orbital nerves, iodide of potassium is a more effective remedy.

The best treatment in these cases is to administer the two drugs separately. This enables the physician to regulate the dose of each.

It is important to keep the patient under their influence, just short of their physiological effects.

Beginning with ten drops of a saturated solution of iodide, given well diluted three times a day, the dose may be increased by adding two drops every second day till a few characteristic pimples appear upon the forehead near the roots of the hair. The appearance of the pimples indicates that the patient is thoroughly under the influence of the drug, and the dose should be diminished. It is not safe to begin with a larger dose, as active iodism may be produced. If the drug be well borne, the size of the dose may be increased more rapidly.

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We have seen cases of paralysis of the orbital nerves in which the paralysis did not began to improve till three drams or more were taken daily. The patients who were anemic, thin and dejected improved in general health, and gained flesh rapidly while taking the large doses indicated. We would emphasize the importance of well diluting such large doses of the drug, and of seeing that the excretory organs are normally active. If these be neglected the general health may be greatly impaired.

Preliminary Training of Medical Students.

The Ontario Medical Council is making a strong effort to raise the standard of medical education in that province. Students are now required to attend lectures in the medical colleges four full years. The editor of the Canadian *Practitioner*, in writing upon this subject says.

"It gives us great pleasure to state that the standard for matriculation has been materially raised, and that for the future candidates in medicine will be required to take the second-class non-professional examination, with Latin option compulsory, as conducted by the Education Department. That this is a great step in advance may be inferred from the fact that the requirements for this examination have been assimilated with those of the examination for matriculation in Arts in the University of Toronto.

As many members of our profession have a very vague idea of these requirements we may state that they include the following:—English Grammar; Composition and Prose Literature; Poetical Literature; English, Roman, Greek and Modern History; Physical Geography; Arithmetic; Algebra, to the end of Quadratics; Euclid, three books; Chemistry; Physics; Botany; Latin, Grammar, Composition, and authors prescribed from time to time by the Education Department. The limit of each subject is that prescribed from time to time by the University of Toronto for Matriculation in Arts."

If the Province of Ontario is like most other civilized parts of the globe—already amply supplied with physicians—her medical men cannot do better than to give the entire weight of their influence to having the above requirements strictly adhered to.

What a blessing it would be alike to the people and the profession of the U. S., if this standard for admission were made compulsory in every medical college in the land. Were these conditions enforced, matriculation books could be bought, in many of our cities, at second-hand stores for a song.

Extending the requirements to four years attendance on lectures instead of three, does not add to the standard of graduation. Some students may attend lectures all their lives and never be competent to practice medicine.

The measures adopted by the Ontario Council are steps in advance, but they do not meet all the requirements. They will unquestionably thin the ranks of matriculates, but do not serve as a guarantee that all graduates shall be well qualified physicians. What is needed is a gauge at the gate of exit, as well as at the gate of entrance, to medical colleges.

While we would in no way depreciate the value of literary attainments, yet we cannot lose sight of the fact that a thorough knowledge of the principles of medicine and the ability to recognize and classify diseases by groupings of symptoms are absolute essentials to a well qualified physician.

The principles can be learned from medical lectures, but the ability to make the diagnosis, can only be acquired by actual experience. The Ontario Council would do well to require the student to spend the fourth year as an interne in a hospital.

Local Medication of the Spinal Cord.

It has long been known that drugs administered hypodermically produce a local as well as a general effect.

Dr. J. Leonard Corning in an article published in the *Med. Rec.*, gives the result of

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his investigations as to what extent this method of medication can be used to control affections of the spinal cord. He injected a solution of sulphate of strychnia under the skin of a rabbit in sufficient quantity to produce general convulsions. He then produced well marked toxic symptoms of hydrochlorate of cocaine, by injecting this drug hypodermically, and found that the cocaine had no effect on the strychnia convulsions.

In a second experiment he produced strychnia convulsions, and injected ten minims of a 4% solution of cocaine between the spinous processes of the vertebræ. In ten minutes he followed this by injecting the same quantity, distributing it in several intervertebral spaces. After the lapse of about fifteen minutes, from the first injections, the convulsions became markedly diminished, and the animal was handled without inducing them. The problem solved in the second experiment was that the spinal cord might be reached by this method of local medication.

Dr. Corning thinks the best results are to be attained in painful affections of the cord, such as ataxia.

His method of procedure is first to produce local anesthesia in the vicinity of the spinous processes of the eleventh and twelfth dorsal vertebræ, and by means of fine needles, on which is a sliding nut that may be fixed at any point in the continuity of the needle, he measures the distance from the surface of the body to the surface of the transverse process of the vertebræ. This represents the distance from the surface of the integument to the spinal cord. After withdrawing the first needle, to make assurance doubly sure, he subtracts two or three millimetres from the distance noted, and fixes a sliding nut on a somewhat larger needle at a distance from its point corresponding to that on the other needle. To the larger needle he attaches a syringe of one hundred minims capacity, filled with a one-and-a-half per cent. solution of hydrochlorate of cocaine to which has been added about $^1/_{75}$ gr. of pyrogallic acid. The needle is now introduced between the spinous processes of the tenth and eleventh dorsal vertebræ to the depth gauzed by the firmly fixed nut. The contents of the syringe is slowly injected and the needle withdrawn. The erector spinæ muscles are then put upon the stretch, that the solution may be gently forced toward the spinal cord.

The doctor gave a brief synopsis of four cases treated by this method, in which the most satisfactory results were obtained, he says:

"In the affection commonly known as spinal irritation, whether there be a condition of congestion or anemia I care not, its effects are certainly in the highest degree beneficial, as I have already had occasion to demonstrate to my entire satisfaction in several cases. How much may be obtained in inflammatory affections of the cord only an extended experience can, of course, determine. In purely functional derangements, however, its efficacy is beyond question."

EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

Hard work is the best tonic one can have: it is alike conducive to good sleep, perfect digestion, an easy conscience and a contented spirit.

The most dangerous period of a doctor's life is the first five or ten years after graduating when he wearily sits in his office waiting for a patient, no patient from day to day.

This is the time that tries his soul. He needs to be on his guard against discontent, envy of his more successful brother, and the generally souring effects of idleness.

Very few busy men can present evidence of their constancy like unto the eminent Dr. Pean, of Paris, as witness the following regarding him in a letter to the American *Lancet*.

As industrious as in his younger days, Dr. Pean pushes so far his love for work that he has had his coupe so arranged as to enable him to study, eat, sleep, and even make his toilet therein. Surgical instruments, books, writing material, drawers full of notes, and

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a chest for linen and clothes, in fact there is everything in this elegant carriage that might serve as a model for the carriage of an army surgeon in campaign.

* * *

A new medical college with a capital of $50,000, and a faculty of eleven has just been established in Detroit, for the charitable purpose no doubt of "leavening" the burden imposed upon the single institution heretofore possessed by that city, engaged in the glorious work of attracting young men, good bad or indifferent into an already over-crowed profession.

And so we have renewed evidence each day of the mania for teaching medicine, which afflicts the profession from one end of the land to the other.

Let the good work go on.

Let the medical colleges increase and multiply on the face of the earth, preaching the glad tidings of universal medicine, making every man, woman and child, their own doctor, until the glad millennium shall have arrived, and the medical Othello, who now flatters himself that he belongs to a learned profession can throw away books, tools and physic and take to the woods, and till the soil, for his individual skill will be swallowed up and annihilated by a thoroughly educated medical public.

Aconitum Fischeri.

The article upon "The Physiological Actions of Aconitum Fischeri," the first part of which is found in this number of the Review is the thesis to which was awarded the $200 prize given by the Jefferson Medical College last year.

Dr. Bradley, now of St. Louis, has been several times a contributor to our columns and his patient investigations will be read with interest, especially by that ever increasclass of our profession, who are interested in the action of the new drug.

SOCIETY PROCEEDINGS.

THE STATE MEDICAL SOCIETY.

The State Medical Society of Missouri, meets at Kansas City, April 17, 18 and 19.

The following programme has been prepared:

Morning Session.

10:00—Prayer, Rev. J. O. B. Lowry; Address of Welcome, Hon. H. C. Kumpf, Mayor; Address of Welcome, Dr. B. E. Fryer; Response, Pres. F. J. Lutz, M. D.; Reports of Committees.

11:00—Reports from Committee on State Medicine, J. M. Allen, Liberty.

11:20—The Ounce of Prevention, George Homan, St. Louis.

11:40—Paramyoclonus Multiplex, Frank R. Fry, St. Louis.

Afternoon Session.

2:00—Collective investigation of Phthisis Pulmonalis, B. F. Hart, Brownsville.

2:20—The Personal Equation; a suggestion concerning diagnosis by auscultation, R. Barclay, St. Louis.

2:40—Intestinal perforation and hemorrhage as complications in Typhoid Fever, L. J. Mathews, Carthage.

3:00—The management of Typhoid Fever, I. N. Love, St. Louis.

3-20—The untoward effects of drugs, with their painful surprises, R. F. Brooks, Carthage.

3:40—Heart Tonics, J. C. Mulhall, St. Louis.

4:00—Discussion of the above papers.

Night Session.

8:00.—The President's Address, Frank J. Lutz, St. Louis.

8:30—What the State Board of Health has and what it has not Accomplished, George Homan, St. Louis, Secretary State Board of Health.

8:50.—Comparative Medicine, or the relation between the diseases of domesticated animals and man, Woodson Moss, Columbia.

9:10.—The Doctor's hope of fame, G. M. Dewey, Keytesville.

9:30.—Discussion.

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WEDNESDAY, APRIL 18.—MORNING SESSION.

9:00.—Short notes on the progress of surgery during the year 1887, A. M. McAlester, Columbia.

9:20.—An analysis of one hundred consecutive amputations, Pinckney French, Mexico.

9:40.—Diseases of and operations on the testicle, Edward Borck, St. Louis.

10:00.—Colotomy, N. B. Carson, St. Louis.

10:20.—Is inflammation of the synovial membrane the initial lesion of joint disease? A. J. Steele, St. Louis.

10:40.—Some practical points in railway surgery, Willis P. King, Sedalia.

11:00.—Discussion of the papers.

AFTERNOON SESSION.

2:00.—Eye and Brain, Charles Barck, St. Louis.

2:20.—Albuminuric retinitis of pregnancy, a case of, B. E. Fryer, Kansas City.

2:40.—The sympathetic nerve in its relation to ophthalmic disease, Wm. Dickinson, St. Louis.

3:00.—An operation for entropion, J. H. Thompson, Kansas City.

3:20.—The treatment of some forms of suppuration of the ear, Chas. A. Todd, St. Louis.

3:40.—Treatment of the hypertrophies of the nasal passages, Thomas F. Rumbold, St. Louis.

4:00.—Trachoma, J. P. Parker, Kansas City.

4:20.—Discussion of the above papers.

9:00 P. M.—Banquet, Centropolis Hotel.

THURSDAY APRIL 19.—MORNING SESSION.

9:00.—A case presenting unique symptoms the result of the disease of the nervous system due to railroad accidents, A. B. Shaw, St. Louis.

9:20.—An indigenous case of leprosy, A. H. Ohman-Dumesnil, St. Louis.

9:40.—A case of gunshot wound of the stomach and liver, Laparotomy recovery, H. C. Dalton, St. Louis.

10:00.—Observations respecting the causes and treatment of uterine displacements, Y. H. Bond, St. Louis.

10:20.—Justifiable and unjustifiable operative surgery of malignant disease of the female organs of generation and the mammary gland, Jacob Geiger, St. Joseph.

10:40.—Syphilis of the lungs, Wm. Porter, St. Louis.

11:00.—Discussion of the above papers.

AFTERNOON SESSION.

2:00.—The objectivity of sense perception, S. S. Laws, Columbia.

2:20.—Nervous pathology, B. F. Wilson, Salisbury.

2:40.—The nervous system in disease, C. H. Hughes, St. Louis.

3:00.—Report of the statistics of the insane asylums of the state, J. W. Heddens, St. Joseph.

3:20.—Laws and appropriations of other states and of the United States in the interest of the public health, G. Hurt, St. Louis.

3:40.—Drinking water and its effects as causative of disease, R. R. Hunter, Kansas City.

The following papers are the ones of which the Committee on Scientific Communications received notice last. There being already so large a number on hand it was impossible to assign hours to these, but it is confidently believed that an opportunity will be found for hearing them read. They are, therefore, here announced, with the expectation that, in case the authors of papers to which hours have been assigned should fail to appear on time, the president will call for the following, in the order in which they stand:

Sympathetic affections of the eye, Adolph Alt, St. Louis.

Electrolysis in the treatment of urethral stricture, John P. Bryson, St. Louis.

Electricity *versus* divulsion, Geo. F. Hulbert, St. Louis.

There are proper cases in which the repair of a lacerated cervix uteri results in cure, J. M. Richmond, St. Joseph.

The first care of the injured, A. H. Meisenbach, St. Louis.

Treatment of enlarged thyroid and sympathetic glands and of fibroid and vascular tumors by electrolysis, T. E. Potter, St. Joseph.

Diseases of the lymphatics and absorbents

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as a cause of anemia, O. B. Campbell, St. Joseph.

Railway accidents and nervous diseases, S. Emory Lanphear, Kansas City.

Insanity from Bright's Disease, L. Bremer, St. Louis.

In view of the large number of papers to be present, the Committee feel obliged to limit the time of each paper to twenty minutes. Some papers may not require that much time, in which case the next paper will be called for, but will not be allowed to exceed twenty minutes, and the time gained will be given to discussion at the end of the session, or to the reading of unassigned papers. Gentlemen whose full papers, as they shall appear in print, may exceed the allotted time, must therefore omit a part of them in the reading or read abstracts from the same.

ARTICLE X, SECTION I, OF BY-LAWS.

No paper shall be received by the Missouri State Medical Association, or published in its transactions, unless such paper is ready to be placed in the hands of the secretary immediately after reading the same.

RAILROAD RATES.

The following roads in Missouri and their branches have given a 1 1-3 rate to those attending the meeting of the association:

Missouri Pacific; Wabash Western; Chicago & Alton; Fort Scott & Gulf; Chicago, Milwaukee & St. Paul; Chicago, Rock Island & Pacific; Hannibal & St. Joe; Kansas City, St. Joe and Council Bluffs.

Notice.—When a ticket is purchased from your local agent to Kansas City, get from him a certificate showing that you are to attend the meeting of the association. For this ticket you will pay full fare. The certificate on your arrival must be countersigned by Dr. J. C. Mulhall, secretary. On the presentation of this countersigned certificate at the ticket office in Kansas City, a 1-3 return rate will be given. Without following the above instructions you will positively fail to get the reduction.

A HANDY CURE FOR HICCOUGH.—There may be some occult connection between hiccough and the auditory apparatus. Not long ago we published an account of somebody's method of stopping hiccough by applying a drop of water to the external ear. Now Dr. Dresch, of Foix, in France, has written a letter to the editor of the "*Bulletin général de Therapeutique*," in which he describes another method, almost as simple, also relating to the ear. Dr. Dresch states that the procedure was not original with him, but that he can not remember how it was made known to him. The method is as follows: The sufferer should close his external auditory canals with his fingers, exerting a certain degree of pressure; at the same time he is to drink a few sips of any liquid whatever, the glass or cup being held to his lips by another person. The effect is said to be immediate.—*N. Y. Med. Journal.*

FEMALE MEDICAL STUDENTS AT ZURICH.—A professor of clinical medicine at Zurich, in a recent lecture, gave by his subject matter offence to his female hearers, they accordingly abandoned his lectures en masse. In return, the male students rallied to the support of their esteemed teacher, frequented his lectures and clinic, and addressed to him a formal expression of their sympathy.

It is evident that coeducation in medicine at Zurich is not without difficulties. Zurich affords, at present, the best opportunities to women of the centres of medical teaching on the Continent.—*Med. News.*

FRACTURE OF HUMERUS BY EXCESSIVE MUSCULAR CONTRACTION.—Dr. L. G. Lebeuf, reports an interesting case (*N. O. Med. and Surg. Jour.*) in which a strong, healthy, muscular man, æt. 28, who had no previous constitutional trouble of any kind, in throwing a "curve" base-ball produced a double fracture of the humerus. The bone was broken a little below the surgical neck, and in the lower third of the shaft.

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THE WEEKLY MEDICAL REVIEW.

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ORIGINAL ARTICLES.

THE PHYSIOLOGICAL ACTIONS OF ACONITUM FISCHERI.

BY ALFRED E. BRADLEY, M. D., ST. LOUIS.

[CONCLUDED.]

REFLEXES AND ACTION ON CORD.

The method used in studying the reflexes is that of Tuerck. The cerebrum of a frog is carefully removed by section, on a line just anterior to the membrana tympani, thus leaving Setschenow's center undisturbed and in connection with the cord. In some experiments it is modified by making the section on a line just posterior to the membrana tympani, thus cutting the above center from the cord.

After recovering fully from the shock of the operation, the frog is suspended by means of a wire passed through the cartilaginous structure of the nose; the reflex excitability of the cord is then determined and measured by the time it will allow its foot to remain immersed in a weak solution of sulphuric acid; about one drop to the ounce of water.

After each withdrawal of the foot, it is carefully washed to remove all acid, and so avoid persistent irritation. A metronome marks the duration of the immersion, by beating seconds.

EXPERIMENT 1. Frog, section at anterior margins of membrana tympani. After shock disappears the animal is suspended as described above. The following table is self-explanatory.

TIME.	R. LEG.	L. LEG.
3:05	4	4
[Gave hypodermatically ♏v of poison.]		
3:15	12	4
3:20	20	13
3:30	22	23
3:35	17	85
3:40	17	100
3:45	35	120
4:00	No response.	None.
[EXPERIMENT 2. Frog prepared as above.]		
3:35	7	8
[Administered ♏x *acon. fisch.*]		
3:40	20	18
3:50	53	21
4:00	137	55
4:15	No response.	None.

In these experiments, after peripheral irritation ceases to produce response, tapping the muscles, or over the spine will elicit contractions. Immersions into cold water would also produce like results.

To prove that Setschenow's inhibitory center does not take part in this diminishing of the reflex excitability, numerous experiments were performed in a like manner, with this center removed from the cord by section as above described. In every instance the same lessened reflex excitability was perceived as in the two experiments above noted. Hence it cannot be due to a stimulation of this center, by the drug which is being employed, that this diminished excitability is brought about. The question now arises, "To what is this reflex diminished excitability due?"

In our endeavor to satisfactorily determine this point, we must bear in mind that the following structures come into action in the performance of a reflex act; in the order named, sensory nerve ends, sensory nerve trunk,

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spinal ganglia, sensory and motor nerve trunk, motor end organs and muscles.

Having previously shown that the drug causes paralysis of the parts involved in the transmission of impressions from without inward, we can infer that to this is due the lessened reflex excitability.

When we remember that we have concluded that the drug had no effect on muscular tissue, and little or no effect on the motor structures, we are justified in arriving at the conclusion above inferred. To demonstrate that it is not alone due to the effects on the nerve but also on the cord, the following experiment was performed:

EXPERIMENT 3. Frog, medulla divided, sciatic of left side exposed and leg ligated, reflexes then taken as in preceding experiments.

TIME.	R. LEG.	L. LEG.
10:40	6	8
	[Gave ♏viij *acon. fiisch.*]	
10:45	8	9
10:50	10	8
10:55	18	7
11:00	15	9
11:05	17	7
11:10	23	8
11:15	26	9
11:20	37	10
11:30	43	21
11:40	57	45
11:50	No response.	None.

In this experiment it is seen that by preventing the access of the poison to one leg, the reflexes are much longer preserved in that leg, but finally fail to be produced; this can be explained by assuming the drug's action on the spinal sensory ganglia, after a preliminary action on the more distal parts of the sensory apparatus.

It is probable that the motor portions of the cord are but little or not at all involved; for by electrical stimulation at any part of its length, the muscles below the point of stimulation are thrown into violent contractions, and this after the full effects of the poison have been produced.

I have submitted the above few experiments because all others are fully confirmatory, and to present and describe more would be simply a waste of time and needless repetition. In conclusion, *acon. fisch.* accomplishes a diminution, followed by abolition, of the reflex excitability of the spinal cord, through its action mainly or wholly, on the sensory apparatus, the spinal portions included. It has no effect on Setschenow's center. It has little or no effect on the motor portions of the cord.

ACTION ON THE CIRCULATORY APPARATUS.

Under this section I have performed experiments relating to the action of *acon. fisch.* on the heart and those parts which are in intimate physiological relation with that organ; also experiments on blood pressure, and relating to those parts with which it is intimately associated, and upon which its variations depend.

Upward of thirty experiments were made pertaining to this head, and I submit the following for the reader's consideration, and to substantiate the deduction which will follow.

EXPERIMENT 1. Frog, medium size, confined to board, heart carefully exposed in situ.

TIME.	PULSATIONS.	REMARKS.
3:30	56	Gave ♏x *acon. fisch.*
3:35	52	
3:40	52	Much weakened.
3:45	44	Much weakened and more feeble.
3:50	68	
3:55	60	
4:00	48	
4:05	40	
4:15	26	Intermittent and very irregular.
4:35		Ventricle ceased in disastole: auricle still beats at irregular intervals.

EXPERIMENT 2. Frog, medium size, prepared as in previous experiments.

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Time.	Pulsations.	Remarks.
10:50	44	
10:55		Gave ♏x *acon. fisch.*
10:57	40	
11:00	48	
11:05	44	
11:10	48	
11:15	60	
11:20	60	
11:35	59	Beats feebly, rhythm much altered.
11:40	63	Intermittent and irregular.
11:50	55	
11:55	36	
12:00	25	
12:10	18	Observations ceased. Heart beating very feebly, labored and with irregularity.

[Experiment 3. Same as preceding.]

10:45	40	
10:50		Gave ♏xxv *acon. fisch.*
10:55	56	
11:00	56	
11:05	57	
11:10	63	
11:15	41	
11:20	38	Very irregular.
11:30	26	
11:35	16	
11:45	13	Observation ceased. Heart beating very feebly, rhythm of pulsation entirely gone.

[Experiment 4. Same as preceding.]

11:05	45	
11:10		Gave ♏xxx *acon. fisch.*
11:15	68	
11:20	56	
11:25	74	
11:30	70	
11:35	44	
11:40	23	
11:45		Observation ceased.

[Experiment 5. Same as preceding.]

9:55	40	
10:00		Gave ♏vij *acon. fisch.*
10:05	56	
10:10	58	
10:15	68	
10:20	60	
10:25	110	Action becomes at times very tumultuous and irregular, afterward labored.
10:35		Heart engorged, beating only occasionally and feebly.
10:40		Heart ceased in diastole.

In this experiment it seems that inhibition was first removed and that followed by cardiac failure, due, no doubt, to action of poison on the cardiac motor ganglia.

From the experiments just described it can be plainly seen that *aconitum fischeri* in large or small doses is an agent having remarkable influence on the cardiac muscle. In experiments 1 and 2 it appears to momentarily slow the heart, as seen immediately after its administration. In both instances the dose is ♏x.

When larger doses are given the pulsations are soon very much increased in frequency, and their characteristic irregularity leads us to believe that it is due to the removal of inhibition, as indeed after-experiments unquestionably prove. The frequency of the pulse beat however is usually preceded by a momentary slowing. To show that paralysis of inhibition is, in a measure at least the cause of this final action, I have made several experiments like the following:

Experiment 6.—Frog, prepared as in previous experiments. Heart beats 28 per minute. *Aconitum fischeri* ♏vii administered hypodermatically, and in twenty minutes the usual effects of the poison were produced—the heart beat rapidly and irregularly 56 times per minute, with entire loss of rhythm.

At this stage of the drug's action, the

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esophagus was distended over a glass tube and the vagus carefully isolated. Stimulation of this nerve trunk by a strong faradic current failed to elicit any response from the heart. Direct application of the electrodes to the point between the sinus venosus and the auricle also failed to have any effect on the heart's action.

EXPERIMENT 7.—Rabbit, weight, 4 pounds; secured to Czermac's holder, jugular vein isolated, and ɱx *aconit. fisch.* injected toward the heart.

Almost immediately the respiratory movements became very embarrassed, spasmodic and much labored, and within five minutes the animal was lifeless from asphyxia. In the meantime, by applying the hand to the chest the heart could be felt to beat violently and with greatly increased rapidity. When respiration ceased, the chest was carefully opened, and the heart found violently pulsating, with its normal rhythmical beat characteristic entirely gone; the auricles and ventricles beat with different frequency, and with varying rapidity. Upon stimulating the vagus in the neck by a strong faradic current the action of the heart was in no way influenced. Upon application of the electrodes directly to the inhibitory ganglion in the interauricular septum, the same non-response resulted.

This and the preceding experiment clearly demonstrate the destruction of inhibition caused by *aconitum fischeri;* as, in experiments to follow, I will show that central stimulation of the divided vagus, its fellow being intact, has no effect on the heart's movements, the parts at fault must be either the pneumo gastric nerve trunk and nerve ends, or the cardiac inhibitory ganglion, probably the latter, for this ganglion fails to respond upon direct application of electrodes conducting a powerful current. The gradual weakening action which comes on shortly after the phenomena caused by removal of inhibition are manifested, can readily be explained by assuming that it is due to over stimulation of the cardiac motor ganglia and their subsequent failure.

The action exerted on inhibition cannot be central or in the medulla; if such were the case, an intra-venous injection toward the heart would have to go the round of the circulation before producing the effects, which would necessarily occupy some time.

As it is, these injections are almost immediate in their result, and therefore we can exclude the medulla, as exerting no influence from the effects we have seen produced by poisoning with *acon. fisch.*

The muscle itself can be excluded, for we have shown that voluntary muscular tissue remains unaffected in our experiments directed especially toward muscular fibers. We can infer that as *acon. fisch.* has no effect on other muscular structure, it can have no effect on the cardiac muscular tissue. Hence the profound impression made by this poison on the heart, is due to its effects on the cardio inhibitory apparatus.

I have found in all my experiments that this drug kills by respiratory failure. But I believe I am justified in stating that it is, as well, a cardiac poison; and could artificial respiration have been employed, we sooner or later would have had death resulting from its poisonous effects on the heart.

BLOOD PRESSURE.

In the experiments to follow on blood-pressure, the animals experimented upon were placed securely on Czermac's holder, the carotid artery carefully exposed and connected with a mercurial manometer and the movements of the heart and the changes in the pressure recorded by tracings on Hawkesley's kymographion. The animals received no anesthetic, except in one case ether was administered. By giving no anesthetic it can lead us in no error; for if such were done, we might interpret the effect of the anesthetic to be that of the drug. The tracing which resulted in each experiment has been preserved, but is here described with the experiment and the interpretation of its results. It would be more satisfactory to submit the tracing itself, for with the tracing before him, one could take in at a glance all the changes rises or falls, which had taken place in blood

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pressure, without the trouble of referring to measurements. My experiments on blood-pressure are not as many as I desired to make, but the premature exhaustion of the drug compelled me to cease. Nevertheless I deem that the observations made are trustworthy, and entirely satisfactory and reliable as to the result.

EXPERIMENT 1.—Cat, weight, 4 1-2 lbs., etherized, secured in Czermac's holder, right carotid isolated and connected with the ma nometer in usual manner known to all experimenters and investigators.

Everything in readiness and cylinder allowed to revolve at 10:55.

At the beginning of the experiment, after quiet had been established, the pressure was 6 1-2 inches, determined by multiplying the distance of the trace from the abscissa or base line by two. The tracing recorded before the administration of any drug shows well the so-called respiratory curve, and the oscillations due to the cardiac impulses.

At 11 A. M. ♏xxx of *acon. fisch.* were hypodermatically injected into the tissues of the abdomen. This was followed by a rise in the blood pressure of about ¾ inch which was but momentary, for at 11:05 it had fallen to about ½ inch less than originally.

It continued to gradually fall, and while the cardiac oscillations became less frequent and greatly lengthened, the respiratory curve becomes almost lost, to be seen only on close scrutiny.

The effect of the drug thus produced was continuous; at 11:25 the observation ceased, clotting having taken place in the tube; the pressure had fallen 3¼ inches, there having been as noted above a slight preliminary rise. Stimulation of the vagus after the experiment had not the least effect on the heart's action.

EXPERIMENT 2.—Rabbit, weight 4¼ lbs., attached to blood-pressure apparatus as in preceding experiment. The following is a description of the trace recorded:

♏xv of the drug were injected into the tissues of the abdomen.

Its immediate effect was to cause a momentary fall in the blood pressure, and a marked slowing of the pulse; this may be a direct influence of the drug or simply an impression caused by the mere injection itself, probably both. However, the heart's action soon quickens, the pressure rises to normal, but again falls slowly as the tracing proceeds. Ten minutes after the first injection the dose was repeated. The pressure again falls, but does not regain its height as before; the respiratory element of the trace lengthens and deepens but becomes less frequent. Eighteen minutes after the administration of the first dose the vagus was stimulated in the neck; an abrupt fall, followed by a marked rise of the tracing needle indicates that it still maintains its influence over the heart. Shortly after the free carotid was compressed and a rise in the blood pressure followed.

This demonstrates the fact that the vaso-motor center in the medulla is not affected, for were it paralyzed the blood pressure would not be modified. The pressure of the artery, the other being connected with the manometer, causes an anemia of the vaso-motor center, and this anemia acts as an irritant to the said center. If it still be unaffected by any previous action of the remedy or drug, it will respond to this irritation, and the result will be a rise in the blood pressure, as is seen to be the case in the experiment under consideration.

Consequently, we can confidently assert that this center is not affected by the action of *acon. fisch.*, and, therefore, is not connected with the causes producing a fall in the blood pressure.

Re-stimulation of the vagus twenty-eight minutes after the first dose again elicited response, much more feeble, however, than before.

The remainder of the tracing shows a gradual falling of the blood pressure and oscillations becoming shorter and rapid, due to the weakening action and increased frequency of the heart's pulsation.

Fifty-five minutes after the beginning of the experiment I injected into the jugular vein ♏iij of the drug; convulsions, and labored irregular respirations almost immedi-

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ately followed, death soon ensuing from asphyxia.

At the beginning of experiment this pressure by measurement is shown to be 5½ inches; at its close 3¾ inches. The difference, 1¾ inches, is the fall which has been caused by the *acon. fisch.* which had been administered.

EXPERIMENT 3. Rabbit, weight 4 pounds attached in the usual manner to the manometer and kymographion. ℥x of the aconite were injected into the jugular vein toward the heart knowing, from previous observation that its action would be very rapid, the cylinder of the kymographion was at once allowed to revolve: the trace which resulted, need hardly be described. The pressure rises, but is due to the labored long drawn respiratory efforts. The respiratory oscillations become lengthened, occur at longer intervals and finally cease in a series of spasmodic efforts. The pressure however had fallen 2 inches. During this experiment the heart could be felt through the chest walls, beating violently and with great rapidity, which continued after cessation of respiration. On opening the thorax, its rhythm was seen to be very irregular: a strong faradic current applied to the vagus in the neck and also to the inhibitory ganglion in the intra-auricular septum, failed to elicit the slightest response, thus confirming and verifying former observations as to this effect. The heart continued to beat in this irregular manner for fifteen minutes after the chest was opened, and then ceased.

EXPERIMENT 4. Frog, large, medulla divided, loop of intestine placed under microscope and observations made on the capillary circulation of the mesentery.

At 12:40 ℥x *acon. fisch.* were injected into lymph sac of the back. In fifteen minutes the current was seen to have weakened, the force being barely sufficient for the onward propulsion of the blood. After each pulsation of the heart, the flow ceases and remains stationary until the force of the next beat of the heart is imparted.

In the interval between the beats, the elastic recoil of the artery, or arteriole, forces the blood backwaad with a force nearly or quite equal to that which causes its forward propulsion by the heart. No change in the lumen of the arterioles or capillaries could be observed. After an hour's observation and no further symptoms, the dose of ℥x was repeated. The frog showed signs of gastric distress and uneasiness. At 2:00 the observation ceased, nothing having been observed to add to the previous remarks.

The capillary lumen remained, as far as could be seen, unaltered. Similar observations were several times made on the capillary circulation in the ears of rabbits, without microscopic aid. They all are corroborative of the one above described.

In summing up this section on blood-pressure, the question which arises is, "To what is the fall in blood-pressure due?" Can it be either directly or indirectly an action of the drug on the vaso-motor system? I think not, for we have shown that the medulla vaso-motor center remains unaffected; also that the lumen of vessels remain unchanged after the administration of the poison. I believe it is due to, and caused by the poisonous effect of the drug on the heart; the action of that organ is so impaired that its propulsive power is greatly diminished; thereby the fall in blood-pressure is caused by simply removing that force which is constantly pushing the blood current onward, the *vis-a-tergo*, and which enters largely into the physiological mechanism of arterial pressure.

In regard to the action of *acon. fisch.* on respiration, I have made no attempt to direct experiments exclusively to those parts concerned in this function. That it is a respiratory poison, and kills by failure of respiration, there can be no doubt, as all experiments conclusively show. Through failure of this function warm blooded animals die of asphyxia.

From what I have observed and what experiments directed toward other organs have led me to believe, my opinion is that this is due to the action of the drug on the respiratory center in the medulla. On four differ

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ent occasions I myself have taken internally gtt. v, about ℥iij of the drug. Slight feelings of nausea usually followed, and the characteristic tingling and constriction of the fauces, due to aconites, was felt in from twenty minutes to half an hour. Beginning the experiments with a pulse from 70 to 76 per minute, it was invariably reduced 6 or 8 beats in an hour or an hour and a half. Its impressions lasted from one to two hours, and then gradually wore away. In animals, dilatation of the pupil was always brought about by the internal administration of *acon. fisch.* but local application of a few drops in the conjunctival sac in numerous instances had no effect whatever. The injection into the loose connective tissue surrounding the eyeball, also failed to have any effect on the pupil in two instances.

In four of my experiments, animals (three cats, one rabbit) were employed which were pregnant. In none of them were the least symptoms produced which would lead me to believe that *acon. fisch.* had any especial effects on the organs of gestation.

From the experiments with the view of determining the physiological actions of *acon. fisch.* and which are herein described, I have drawn the following conclusions:

1. That it is a rapidly acting poison.

2. It kills by failure of respiration.

3. In sufficient doses it is a depressing systemic emetic; it has the effect of producing the aconite tingling.

4. It has little or no effect on the motor nerves; if any action at all, only slight impairment of conductivity.

5. By systemic action it has no effect on the energy, contractility, or irritability of muscular tissue.

6. That in its systemic action it is a paralyzer of the sensory nerves.

7. It first paralyzes the sensory nerve ends, next the nerve trunk, and finally the spinal sensory ganglia.

8. Its action on the sensory nerves precedes its action on the motor.

9. When brought directly in contact with the sensory nerve ends it destroys or paralyzes for a time at least, the functions of those parts.

10. Its action on the posterior extremities always precedes its action on the anterior.

11. That it has no effect on Setschenow's inhibitory center.

12. That it lessens, finally abolishes, spinal reflex excitability by its action on the sensory apparatus.

13. The motor portions of the cord are but little or not at all concerned in the abolition of reflex excitability.

14. That is a heart poison.

15. After a preliminary slowing the action of the heart is rendered irregular, rapid and feeble in both warm and cold blooded animals.

16. The slowing is probably due to stimulation of the cardiac inhibitory ganglion; the final action is due to paralysis or removal of inhibition probably caused by paralysis of the above mentioned ganglion.

As the cardiac muscular fibers will not respond to faradic stimulation, a possible action of these tissues, may be a factor in the effects produced on the heart.

17. The heart finally stops in diastole, due to over stimulation and failure of its motor ganglia.

18. That it causes a fall in blood pressure preceded by a very slight rise.

19. This fall is secondary, and due to its action on the heart.

20. The slight rise is due to the momentary, preliminary, stimulation of the heart.

21. That it has no effect on the vaso-motor center or system.

22. That its action on the respiratory center causes death by failure of respiration.

23. That it has no effect on the organs of reproduction, and is not an abortifacient.

24. That, in its systemic action it always causes dilatation of the pupil.

25. Locally it has no effect on the pupil.

26. That in many respects it has actions identical with *aconitum napellus.*

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TYPHOID-PNEUMONIA.

BY J. J. JONES, M. D.

Having treated several cases of typhoid-pneumonia during the last winter, I concluded to write some of my experience with the character and treatment of one of the cases that I have encountered.

I do not presume to write anything new, or of very great interest, but think it the duty of every member of our profession to try to do what he can for the advancement of the cause of our calling, and the relief of the suffering, which may be done, to some extent at least, by almost any member (capable of observation and reflection), by reporting the treatment of his cases, and the convictions forced upon him by daily communications with the afflicted, of the nature and character of their diseases.

I shall feel sufficiently remunerated for the care and trouble I have taken to keep notes of my cases, and for reporting them, if it will contribute in the least to that end.

Though the old and experienced practitioner may find nothing important to him in the report of the ordinary cases of disease, yet they are often like bread cast upon the waters to the younger members of the profession, especially if they are treating like cases to those reported, and have worried over the perplexing difficulties often encountered—watching, and endeavoring to intelligently note the symptoms that they may treat them successfully.

The term typhoid-pneumonia is an improper one, as it conveys the idea of a distinct disease, as does the term typho-malarial, which has been so extensively discussed of late years. The pneumonia is only an accidental complication (though a very frequent one) of typhoid fever, not a disease *sui generis*. Neither is it a necessary sequel, like the ulcerations of the glands of the ileum which are diagnostic of typhoid fever, although ulceration of the glands of Peyer is not the disease itself, but the result of a specific primary cause, about which many theories have been advanced. The microscope may possibly settle the question however, in the near future.

I was called about February 1, to see a child three years old, which had been in fine health previous to the attack, suffering with a case of typhoid-pneumonia, in the latter part of the first week of the fever. I found the child's temperature 104½°, respiration 50, pulse 130, cough dry and harassing.

The fine crepitation, characteristic of the earlier stage of pneumonia, was distinctly audible over both lungs—catarrhal in character. The *crepitant rale* being present showed that the pneumonia was of a more recent origin than the fever, as this symptom generally lasts but a short time, and is succeeded by consolidation. The left iliac region was slightly distended, but gave the gurgling sound on pressure, which is regarded as diagnostic of typhoid fever. Bowels were constipated. I commenced the treatment with calomel, bicarb. soda, and Dover's powders in four doses, one every three hours to be followed by castor oil and spirits of turpentine. I also prescribed a mixture of chloride of ammonium, syrup ipecacuanha, and prunus Virginiana, to be given between the powders. I had the surface of the child's body sponged with tepid alkaline water, and directed that a warm mustard bath be given at bedtime. The medicines acted well during the night, relieving the bowels of a large quantity of fecal matter. The next morning I found the temperature 101½°, respiration 40, pulse 120 and skin slightly moist. I gave quinine in four grain doses every two hours until four doses were taken, and I ordered the cough mixture to be continued. In the evening the fever was again quite high. Temperature 104°, respiration 50, pulse 132 and of good volume. I put the patient on antipyrin, five grains every two hours until fifteen grains were taken if necessary, and continued the cough remedy. Applied poultices of flaxseed meal (made stimulating by sprinkling mustard over them) to the chest. The patient rested well during the night. The next morning I found another remission of the fever, temperature 101½°, respiration 35, pulse 118 and the skin

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moist. The expectoration was free and sufficiently copious—I could not resist the temptation to try quinine again although I had long since learned that but little could be expected from it, in preventing a rise of the fever; yet I thought to get its antipyretic effects and gave it in large doses. The evening exacerbation came as usual, and I had to resort to antipyrin again. The patient slept well during the night, and was only disturbed by an occasional fit of coughing. The rest and sleep was the result of the soothing action of the antipyrine. The next morning I found the temperature 101°, respiration 35, pulse 120 and the skin moist. The bowels had acted freely, and the kidneys copiously. Considerable prostration was evident. I prescribed beef peptonoids, milk (which the child took freely on account of its thirst) and egg-nog. Also carb. ammonia, syrup tolu, and wild cherry. At this stage of the disease the bowels became quite irritable with considerable tympanites present. This condition was however remedied by the use of turpentine, opiates, and astringents, together with turpentine stupes to the bowels. During the time that this irritation existed, the pneumonia was partially relieved. This case went on, with some modification, for weeks. To enter into a detail of the daily condition and treatment as contained in my case-book, would lengthen this communication until it would occupy too much space in your journal, as well as prove tedious to your readers. Therefore, I will generalize in the further report of the case. Diet was carefully prescribed, (and often enforced upon the patient) consisting of beef tea, milk, eggs, and soups of various kinds, always having care to their nutritive properties, and that they were properly assimilated. Brandy was a frequent requisite, stimulating expectorants were prescribed when indicated. Tonics and alteratives, especially syrup lacto-phosphate lime with arsenic, iodide potassium with arsenic, iodide of ammonia were used at different times with good effect. Later in the disease quinine with phosphate iron was given beneficially.

Turpentine, opiates, and astringents variously combined, did good service to control the bowels and heal the ulcerations. Counter-irritation was kept up by different local applications, almost continuously. In fact, everything was done to sustain the strength and vitality of the system.

One feature was prominent during the continuance of this fever, and that was, that when the bowels were irritable and tympanitic, the lung trouble abated, and as soon as the bowels were relieved the pneumonia was again a striking feature in the case. Thus, this patient continued vacillating, as it were, between life and death for eight weeks. I did not see the patient clear of fever during that time, and I saw him daily. The boy is now convalescent and with care will recover. There is nothing worthy of much note about this case only; 1. Its obstinacy and persistence without forming other complications; 2. The remarkable manner in which his strength has been preserved under the long continuance of the fever, (which in the last four weeks, continued without the evening exacerbations). This was doubtless the result of judicious feeding and other hygienic measures; and 3. The partial metastasis that took place with the lungs and bowels, at various times during the illness.

3609 St. Louis avenue.

Dr. Julian J. Chisolm, of Baltimore, says: I am a strong advocate of chloroform, believing it to be the most available remedy of its class. I recognize it as a powerful agent for evil, but at the same time I believe it to be the best of the general anesthetics. In army life and in civil practice I have had a personal experience of at least ten thousand administrations, and without a death. For thirty years I have had charge of a surgical hospital service, and my daily use of chloroform has been the subject of public professional observation. Sulphuric ether I have seldom used—not one hundred times in my life, and in most of these instances only to exhibit on patients the effects of the various anesthetics in medical classes at the University of Maryland Hospital Clinic. In the last ten years I have not used it once. For painful operations of very short duration I use the bromide of ethyl, and for all others I use chloroform exclusively.

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SATURDAY, APRIL 21, 1888.

DR. WOLFNER'S CRITICISM ON THE PRESENT MODE OF TREATING CONJUNCTIVAL AFFECTIONS.

In an article published in the April number of the St. Louis *Courier of Medicine*, Dr. Wolfner states that physicians use astringents, such as sulphate of zinc, boracic acid, and nitrate of silver, in the treatment of acute conjunctival affections, "simply for the reason that their grand-fathers did the same, and not because common sense dictates such a line of treatment."

We think that unless the doctor can prove conclusively that their grand-fathers were wrong, he had better adhere to the plan which has "usually been successful." Especially would it be the part of wisdom to do so until he has something more than a "theoretical explanation" to prove that the grand-fathers' mode of treating these cases was a "medical fallacy."

The statement he makes, that acute conjunctival affections will recover more rapidly without the use of astringents than with it, is one that can only be proven by taking a large number of cases that are as nearly as possible alike in the character of the disease, and in their surroundings, treating one-half of them with astringents, allowing the other half to go without treatment, and comparing the results obtained. This, so far as we know, Dr. Wolfner has not done.

He says that specialists adopt these remedies "because their patients get well under their use." We wonder what other reason the doctor has to offer for the employment of any remedy whatever. In fact, he states that he himself was induced to instill molasses into the eye in chronic conjunctivitis by learning that a "traveling eye doctor" had treated a number of cases successfully by putting something into the eyes that "looked like molasses and tasted sweet." He believes there is some special virtue in the remedy, as patients "almost immediately get better under its use."

We do not believe that there are many physicians limiting their practice to diseases of the eye, who do not know that strong solutions of astringents generally increase instead of diminishing, acute conjunctivitis; but we have the testimony of the leading men of our day (and there is no higher authority to which we may appeal) that many cases of acute conjunctivitis are cut short in their course by the *proper use* of astringents.

However, had the doctor confined his criticisms to the treatment of acute catarrhal conjunctivitis, very little harm would have resulted, as he rightly says most cases get well without treatment.

But he makes a grave mistake when he offers the advice of a specialist to the general practitioner, to treat purulent and gonorrheal ophthalmia simply by making applications to the outside of the lids. Surely he does not deny that the discharge, in some of these cases, is so corrosive that it may destroy the cornea within twenty-four hours if left in contact with it. Applications to the outside of the lids cannot control this. Nothing short of a frequent and thorough cleansing of the conjunctival sac can prevent it.

He says: "Drop nothing into the eye that will irritate, and, therefore, not even a drop of water. Use soothing applications to the lids either hot or cold, whichever is more grateful to the patient. Most cases will be benefited more by the use of compresses wrung out of a cold solution of opium than by any thing else. The compresses should be light, and should be frequently dipped into the solution, each application lasting between fif-

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teen minutes and a half hour, and repeated four times a day.

In addition to this apply a bland, unirritating unguent to the lashes before retiring, and in this way prevent the lids from gluing together in the morning. Purulent and gonorrheal ophthalmia should be treated in exactly the same way, except that the solution and salve must be used more frequently, and the parts kept scrupulously clean. No irritating drops, no syringing out of the conjunctival sac with warm water, no nitrate of silver, no bichloride of mercury, and your patient will get well."

We abstract the following from a prize essay on the "Treatment of Ophthalmia Neonatorum", written by Dr. Mules of the Manchester Eye Hospital, published in the January number of the *Med. Chron.* "The mother or nurse first should wash the eyes in warm water to remove the secretion and free the lids. The surgeon should be seated in a convenient chair, with a folded towel across his knees, and with medical appliances within reach of his hand. These appliances are: (1) A plentiful supply of pieces of clean rag; (2) solutions of argenti. nit., 5 grs. to 1 oz., and 10 grs. to 1 oz.; (3) vessels of clean water; (4) two camel's-hair pencils to apply the solutions and wash the excess of fluid away; (5) a bottle of eserine, 5 grs. to 1 oz., and dropper; (6) lid elevators. He then receives the head between his knees, yet supported by the towel. The nurse, tucking the child's legs under her left arm, supports the body on her raised knee, holds the child's hands with one hand, and has the other hand to assist the surgeon. The surgeon first proceeds to examine the condition of the cornea by gently raising the upper lid with his finger—if there is any difficulty in this maneuver he uses an elevator. A bent hair pin often answers admirably. He next everts the lids, wipes them dry, paints them with the silver solution of the required strength, taking special care to get the back folds of the conjunctiva, and washing off the excess of solution with clean water, carefully replaces the lid by drawing them downward and away from the globe. This process is repeated by the surgeon every morning until the disease is arrested, his object being to produce a slight eschar, which either destroys the micro-organisms or prevents their multiplication. The effect lasts about twelve hours. In severe cases the solutions can be applied at night. However careful a surgeon may be, his efforts are of little avail unless he is ably seconded by the nurse. Her duties are—to prevent the re-collection of pus, by constantly opening the lids and wiping the matter away with clean rags; to wash the conjunctivæ with a weak alum or boracic acid solution, 3 grs. to 1 oz.; to anoint the lid margin with cerate to prevent adherence, and to combat the feverish restlessness by fresh air and careful attention to diet.

Etiology and Classification of the Anemia of Puberty.

The belief that sepsis plays an important part in the production of abnormal conditions in which pathological changes in the blood are found, has given rise to many theories as to the manner in which the poisonous material is introduced into the system.

Chronic constipation is so constant an accompaniment of chlorosis in girls that some have supposed the retained fecal mass in these cases to be the source of the infection. We know that in many cases in which feces are retained for some length of time, the breath and the excretions of the skin become very offensive.

We abstract the following from an instructive paper (*Brit. Med. Jour.*) written by Dr. E. M. Cosgrave, of Dublin.

Trousseau considered chlorosis a neurosis, the blood changes being secondary. Niemeyer seems to think it a result of premature sexual activity. He writes: "According to my observation, chlorosis attacks all young girls without exception in whom the menses have appeared in the twelfth or thirteenth year before the development of the breasts and pubes. Mitchell Bruce says, the origin of the disease lies in the peculiar condition of the blood and blood-vessels, which is believed to

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be congenital and perhaps hereditary. Aitken considers chlorosis as one of the "functional diseases of the female organs of generation in the unimpregnated state." Sir Andrew Clark, considers feculent retention, and, its consequences as the cause. See looks upon it, as the result of an inability of the organism to meet the demands made upon it by the simultaneous advent of menstruation and the rapid growth of the tissues.

"Generally speaking, all things are causes which lessen metabolism and the power of the system to meet the demands made upon it, such as want of exercise, improper food and vitiated air, and the variety of the disease will depend greatly upon the force and direction of these causes."

Continuing, Dr. Cosgrave says, that besides chlorosis there are other well-marked varieties of anemia of puberty. He classifies them as follows:

1. Fat anemia, where there is well-marked deposit of adipose tissue.

2. Anemia of overgrowth, where there has been well-marked general increase of growth without much deposit of fat.

3. Anemia of general malnutrition.

The first and second and second and third may overlap, but never the first and third. The second and third (those in which there is no deposit of fat) are liable to be complicated by tubercular disease.

He does not believe that constipation is a cause, but rather the result of the general sluggishness of the functions. This is shown by the failure of belladonna and nux vomica to relieve it. He refers to the fact that some cases of anemia are cured by preparations of iron, without any purgatives being administered.

He does see why constipation should produce anemia in girls and not in boys—with regard to the occurrence of the menses, his experience has been that early development and not premature menstruation seems to be the rule.

"In fatty anemia there is certainly an hereditary acquired causation."

He thinks the daughters of young mothers are specially liable to this form of the disease.

"A most important contribution to the etiology of the disease has been made by Beneke, who has shown that the annual increase in the heart and blood vessels in girls up to puberty is 8 per cent. per annum, whilst during the establishment of menstruation it is 80 to 100 per cent., so that if puberty is established in a single year, an extra growth of from 70 to 90 per cent. weight, in addition to ordinary growth, is entailed, and that at the end of puberty the lungs have arrived at the fullest development, and the excretion of carbonic acid gas has reached its highest. There is no such rapid change in the male.

"Professor Bowditch says that, up to 11 or 12, boys are, on the average, taller and heavier than girls; for the next two or three years girls have the advantage, whilst after 14 or 15 boys again excel in strength and height.

"It is probable that the rapid development of the female is to be found in sexual selection. Men generally choose wives younger than themselves, and so women who are early sexually mature are most likely to be married and have offspring. In time this ought to cause a rapid maturity, and the general tendency would be emphasised in the offspring of mothers who were married young."

Asclepias Syriaca.

The number of remedies for disease has been multiplied to such an extent that no physician ever finds occasion to use them all. The fact that remedies do not always produce the same effect on different individuals, or even on the same patient at different times, has prevented the classification of remedies that would reduce therapeutics to a perfect science. This varied effect is due in some cases to the varying strength and quality of the drugs used, but more frequently to the fact that it is impossible always to tell the exact condition of the patient.

Dr. B. F. Records, of this state, in a communication to the *Med. and Surg. Reporter*, gives the results of the use in his practice of asclepias Syriaca, a drug which in the hands

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of some has given most excellent results, while the experience of others has been that it is of but little therapeutic value.

Dr. Records reports that since 1873 he has prescribed a decoction of this drug in perhaps a hundred cases of lumbago, with uniformly good results.

He also reported a case of heart disease in which general anasarca existed to such an extent that the patient could not lie down. Under the use of the drug the patient was reduced to a mere skeleton in ten days; but he could lie down and sleep comfortably. His heart's action became more regular and its impulse strong. He began at once to improve and lived for a year and a half happy and contented, when his heart suddenly failed and he died within a few hours.

In a case that came under our observation ascites had existed for seven years to such an extent as to make the patient almost helpless. By beginning with small doses of the tincture and gradually increasing them, the patient was cured within three weeks, with no apparent effect of the drug other than a somewhat active diuresis. In five years there has been no return of the dropsy. Since then similar cases have verified the efficiency of this drug.

The Study of Science.

The *Lancet* in speaking of the annual address to the students of the London Society for the Extension of University Teaching, says that Sir James Paget, who recently delivered the address, paid a high tribute to literature as a study, but he left a decided impression on the minds of his hearers that, as a means of happiness and a source of usefulness the study of science was more excellent still. He claimed for science that it included the training of the power of observation, the teaching of accuracy, and the teaching of the methods by which we pass in thought from that which is proved to that which is probable.

He emphazied the importance of combining the power of observation with that of expression. The *Lancet* says: "Few, however, can hope to catch that *felicitas verborum* which is such a gift in Sir James Paget and and of which the following sentence is an illustration, 'We all of us know a number of persons who would not for their lives tell a lie, but who, nevertheless, always seemed as if for their lives they could not tell the exact truth.'"

Unique Removal of the Uterus.

Dr. B. B. Browne applied a saturated solution of chloride of zinc to a cancerous uterus by means of a tampon which was held in place by absorbent cotton.

Below the cotton he placed a second tampon which was saturated with bicarb. soda and glycerine. On the seventh day the tampons were removed, and on the tenth day the uterus in its entirety sloughed and came away.

The specimen was exhibited before the Clinical Society of Maryland.

EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

Salol as a remedy for rheumatism is receiving much praise, some observers claiming that it should almost rank as a specific.

I take it that this drug, as well as salicylic acid and the salicylates of soda, lithia, and ammonium should be given to a saturating degree in the very outstart of the disease in order to secure the best results.

* * *

An announcement has been made that a physician in Massachusetts, Dr. Hipkiss, educated at a homeopathic medical college, has renounced dogmatic medicine and applied for admission to the State Medical Society. He is willing to submit to an examination, but is found ineligible because he has a diploma from a homeopathic school. An attempt is to be made to correct the manifest injustice in the requirements for membership.

It is to be hoped that the time is not far distant when privilege to practice, as well as eli-

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gibility to membership in medical societies will depend upon licenses obtained from state censors after rigid examination rather than so called diplomas. Then will every college be permitted to teach as much or as little medicine as it pleases and its certificate will go for what it is really worth.

* * *

The Missouri State Medical Association is in session as we go to press, and all indications point to the meeting being a grand success. The Kansas City doctors are said to be "laying themselves out" so to speak to give visiting delegates a splendid intellectual bill of fare in the regular programme, and a delightful time socially.

* * *

A good crowd went up last night on the special car provided by the generous and enterprising mamagement of the Missouri Pacific R. W. Co. The interior arrangements of this car (manufactured to the special order of the company) are perfect, it presents a poem in color, a symphony in blue and gold, and nothing has been spared to secure the comfort of guests.

President Lutz took the St. Louis delegation all under his wing, and a happier, less hungry brood cannot be imagined.

To-night the staff of this journal goes by the same popular route (the Missouri Pacific) and the provision that has been made for their luxurious enjoyment rivals the splendor of the entertainment furnished in the Arabian Nights long famed in story.

* * *

Next week's issue will contain a full report of the proceedings of the Association and we bespeak for our readers much that will interest them.

* * *

Professor Petrusco, of Bucharest, reports the very successful treatment of one hundred and forty-two cases of pneumonia by large doses of the infusion of digitalis—from one to two drams of the leaves in infusion in the twenty-four hours. In no cases were any evil effects from these large doses observed. While it does not appear that the disease was materially shortened, the mortality was much below the average—the death rate being only one per cent.

CORRESPONDENCE.

NEW YORK LETTER.

NEW YORK, April 1, 1888.

EDITOR REVIEW:—I spoke in my last letter of the resignation of Dr. Henry B. Sands, from the position of Attending Surgeon to the Roosevelt Hospital. Dr. Charles McBurney has been appointed as his successor, with Drs. Frank Hartley and Richard J. Hall as his first and second assistants respectively. Dr. McBurney already holds a position at St. Luke's and Bellevue Hospitals, but it is surmised that he will resign them in view of his new and continuous service.

Two of the faculty of the College of Physicians and Surgeons have been seriously ill of late. Dr. Dalton, the President and Dr. Sabine, Professor of anatomy. The former had a cerebral attack a week ago, causing aphasia and hemiplegia, but they passed off and the patient is, I understand, rapidly recovering. Dr. Sabine is very critically ill, and fears are expressed concerning his recovery from his present malady which is a combination of an old pulmonary trouble with a recent renal affection.

The Academy of Medicine has made an appeal to the public for additions to the building fund. Their present quarters are cramped and utterly inadequate for the proper conduct of their work. Their valuable library of nearly forty thousand volumes as well as twenty thousand pamphlets, is open to the public as well as to the profession. These literary treasures are in simply an ordinary city house, somewhat remodelled, it is true, but without the slightest pretension of being fire-proof. The building fund now amounts to somewhat over one hundred thousand dollars. It is desired to increase this amount to a quarter of a million. The justice of the appeal to the public is apparent to all when it is remembered that neither the state nor the city

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does anything to maintain the institution, though they make constant and unremunerated use of its members in the hospitals and asylums. A committee has been appointed to take hold of the plan of raising funds and numbers among its members, Drs. Agnew, Barker, Draper, Thomas, Shrady, Roosa, Loomis, Weir and others of prominence. It also contains a number of representative lay citizens. Whenever the new edifice shall take material form, it will probably stand upon an up-town site. The *Tribune* gives the project cordial editorial mention, and says that "the immense amount of wholly unremunerated labor for the public good, performed by the physicians and surgeons of this city is a substantial ground upon which to look for encouragement in an object intended to make them all the more valuable to the community.

An animated discussion is now going on between the "Bloomingdale Asylum on one side and the State Legislature on the other. The asylum property includes about ten city blocks and though bought originally for a comparatively small sum and regarded as being out in the country is now immensely valuable and almost in the heart of the "west side," which has developed so amazingly during the last few years. The city representatives in the legislature have introduced bills with two objects in view; first, that the property shall be taxed and second that the present obstructed streets on each side shall be made continuous through the property. It is needless to say that the real estate men are at the bottom of the project. In reply to these acts, the governors of the institution declare that their institution is to a certain extent a charitable one, though most of the patients are well-to-do, and pay good fees for treatment. Out of the profits of the institution is maintained the Chambers Street Hospital (both being under the control of the Society of the New York Hospital), which furnishes free bed and ambulance service to all the city on the west side below Grand street. The institution could not afford to pay taxes, and its managers declare that streets through the grounds would be absolutely injurious to the patients from the noise of traffic. To cure lunacy space and fresh air are required. It is important that we should have near the city's center a place for the reception of well-to-do patients suddenly attacked with insanity. Some years ago the asylum managers bought a large farm at White Plain's with reference to the ultimate removal of the institution to that place.

We have recently had another small-pox shake-up. The steamer Brittania arrived with a cargo of dirty Italian immigrants, some of whom were down with variola. The ship's surgeon had isolated them however, and Health officer Smith allowed the vessel to pass quarantine. Health Commissioner Bryant and President Baylies, of the Health Board, argued against the passengers being allowed to land and practically expressed their official disapproval of Dr. Smith's action. The vessel was anchored in the bay and surrounded by police patrol to prevent communication with the shore, and after the usual period of incubation had passed and no fresh cases developed themselves, the new comers were allowed ashore. Over forty cases of the disease have been unearthed during the last two weeks and seven deaths are reported. Ten new assistants have been added to the vaccinating corps.

Apropos of Dr. Smith, I may say that the legislature has recently passed a bill fixing his salary at ten thousand dollars. All the funds passing through his hands are to be turned into the State Treasury.

On the evening of the 29th inst. Dr. William H. Welch, delivered the first of the present course of Cartwright lectures before the Alumni of the College of Physicians and Surgeons. It was an exhaustive discourse on "The Nature of Fever." Any synopsis of it would be unsatisfactory, and the readers of the REVIEW are asked to kindly await its publication in full in the current journals.

The matriculation list of the institution named shows for the present session over eight hundred names. No such number of students is in attendace however. Hereafter,

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all new matriculants must pass an entrance examination, and this last fall many "got in under cover" who will not commence their real work until next fall. J. E. W.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, March 24, 1888, the president, YOUNG H. BOND, M. D., in the chair. J. B. PRICHARD, Secretary.

DR. BRANSFORD LEWIS read a paper (see p. 412)on

TRACHEOTOMY IN MORPHINE POISONING.

DR. W. TOWNSEND PORTER.—The cases which Dr. Lewis reports, and his remarks,are certainly very interesting; and were I permitted to speak for others I should say that the young members of the society, at least, owe the doctor a vote of thanks for his paper. But there are some points brought out in this paper concerning which I can not agree with him. Cases of opium narcosis can be divided into two classes; those in which the narcosis is not so deep or profound as to make the case of extreme danger, and those in which the prognosis is very grave indeed. The operation of tracheotomy, taking time at a moment when time is of the greatest value, would be applicable only in the second class of cases, where the prognosis was grave, and where a radical operation would be justifiable. According to Brunton, the length of time during which the effect of opium continues in a marked degree, in cases of decided poisoning with the drug, is on the average twelve hours. Tracheotomy could not hasten the disappearance of the toxic action of the drug, for opium does not affect directly the respiratory action of the lungs, but produces a depression of the nerve centers, beginning with those of the highest importance. This partial paralysis is central in its origin, and can not be controlled by medication applied directly to the lungs. Therefore it seems to me that a procedure which has in view merely the pumping of air into the lungs, will not remove the primary cause of the condition. Moreover tracheotomy and a subsequent injection of air through the bellows is not a trifling matter. Cold air pumped into the chest may produce pneumonia. If the admission of air be not very carefully regulated, there will be danger of rupture of the air cells. It will be necessary to use a Wolffe's bottle containing warm water through which the air may pass and be moistened and warmed and adapted to the respiration, for we can not suppose that in the majority of cases this pumping action would bring back the patient to an approximately normal condition within a short length of time. There is no reason to believe that the bellows respiration would have a very much greater effect upon the passage of air in and out of the chest than the method of Sylvester carefully carried out. Resuscitation usually requires several hours of bellows respiration, or artificial respiration according to Sylvester's method. I know from personal experience that the fatigue involved in the bellows method is very much greater than in Sylvester's method. One point which was made in the paper was the advantage of the blast of cold air in getting rid of the mucus. The amount of mucus which would gather in the trachea, it seems to me, would not in any case be so great as seriously to impede respiration. If it were so great, then the interruption would be made worse instead of better by the presence of the tracheal cannula, as I have demonstrated on dogs. Opium diminishes the secretion of mucus from the bronchial mucous membrane.

DR. S. C. GRAVES.—I think there are other reasons for performing tracheotomy in a case of grave opium narcosis, besides that of getting rid of the accumulated mucus. Paralysis of the inferior laryngeal nerves causes approximation of the vocal cords and a partial closure of the glottis, and the tongue has a tendency to fall back and occlude the opening. Tracheotomy obviates these difficulties. The case reported demonstrated that the accumulation of mucus may seriously impede respiration, and its removal was one result of the operation. During my service in Char-

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ty Hospital New York, the house surgeon erformed tracheotomy for supposed edema f the glottis, but the case proved to be one of pium poisoning. The patient recovered.

Dr. Porter.—In opium narcosis, we do not nd that whistling inspiration which is a sign f a partial obstruction of the chink of the lottis; so that I cannot admit that the glottis s specially narrowed in those cases.

Dr. T. F. Prewitt.—I am not particularly truck with the idea of performing tracheotmy in such cases. It seemingly answered a ood purpose in the case which Dr. Lewis reorts, but the only object of tracheotomy ould be to get air into the lungs. The lottis is not blocked in any way, and I beieve with artificial respiration we can always et air into the lungs. The objection made y Dr. Porter is well taken; that there is a isk of injury to the lung tissue as well as anger of exciting pneumonia. Long continued use of the bellows would increase this anger. The doctor did not state whether or ot he used flagellation in this case. In my xperience I have found it one of the most efficient agents that we have in opium narcosis.

Dr. L. H. Laidley.—Dr. Love will doubtess remember the case of a gentleman whom e kept alive for twelve hours by artificial espiration. I am sure the man would not ave breathed at all during at least twelve ours if we had not kept up the artificial espiration. He then lived about forty-eight ours, and died with evidences of a developg pneumonia. In his state of extreme prosration and lack of power of resistance, the an died from the very treatment which was ecessary to keep him alive, and which was ertainly warranted. I think we should look ell to the methods that we employ in order o save these patients.

Dr. I. N. Love.—I think in considering a procedure for the relief of a condition which nvolves the saving of life, we should not diss it from the standpoint of its improper pplication. An argument against the improper application of a remedy is not an argument against its proper application, and to ay that the average practitioner could probably not grasp the idea of the risks involved, and the necessity for care, in introducing air directly through the opening in the trachea into the lungs, is a reflection upon him which is not justifiable. The procedure, as we have just heard, furnished an opportunity for the expulsion of accumulated mucus, which seriously impeded respiration. I think the point made by Dr. Graves, in regard to having an opening which is not obstructed by an unmanageable tongue, falling backward against it is a good one. The result in the case reported by Dr. Lewis certainly speaks in favor of the operation; as do also the results in the case reported by Dr. Graves and the two or three others reported by Fell who introduced the operation. These cases are certainly not evidences against the procedure. As we have seen in the case just reported by Dr. Laidley, the use of Sylvester's method and other means of artifical respiration may be followed by pneumonia, and the question enters my mind whether there is more danger in the proper application of this operation and introduction of air into the lungs, gently, carefully, properly; not recklessly and carelessly, it having been passed possibly as Dr. Porter suggests, through warm water.

Dr. Prewitt.—I would like to ask Dr. Love if he thinks it would be advisable to adopt a new operation that might be subject to abuse by the average practitioner, in which I include myself, when other means will answer quite as well.

Dr. Love.—I take it that the point is made in the paper that the operation is to be done only in that class of cases which are ranked among the most serious; and that no class of practitioners on reading the report of the case would jump at the conclusion that they should rush in and perform the operation where other, milder measures would do as well.

Dr. Broome.—The old saw has it: "The proof of the pudding is in the chewing the string." The paper and the discussion have impressed me in this way. Dr. Lewis case got well so far as the operation was concerned. The remedy which was suggested

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by Dr. Prewitt, if adopted in the case, would probably have proved ineffectual. The immediate ingress of air is what impresses the patient and resuscitates him, or at all events re-establishes respiration. Then there is an immediate cessation, but the respiration again returns. I do not think the cases cited by Dr. Prewitt and Dr. Porter are exactly parallel cases.

Dr. Edward Borck.—I think that every case must stand on its own merits, and while the criticism of Dr. Porter is very excellent, nevertheless I think Dr. Lewis did right in this case. The fact that the case got well is evidence. If extreme measures are adopted and the patient recovers, it proves the correctness of our judgment in adopting them, and we are justified. On the other hand we might adopt the Sylvester method and the patient die.

Dr. Prewitt.—It is claimed that in this case the admission of air directly to the trachea aroused the patient. Now is there a member of this society who believes that the contact of fresh air directly with the trachea, would do more towards arousing the patient than flagellation would do? I venture to say that the cyanosis was not the result of the accumulation of mucus alone, and that if the patient could not be aroused by flagellation, he would not be aroused by the simple admission of air into the tracheal tube. I do not think there should be much difficulty in getting air into the lungs. We can always get air into the lungs, if the tongue does not get back upon the larynx—we can always introduce air by proper artificial means.

Dr. Young H. Bond.—In that class of cases where flagellation and other ordinary means fail to produce the desired effect, tracheotomy is certainly justifiable. The prejudicial influence of cold air passing into the lungs, would not be so great, the sensibility of the parts being benumbed, as in diseases for which this operation is usually performed. We know that in many cases in which this operation has been performed for other diseases, and the patients breathed atmosphere that had not been warmed at all, pneumonia did not follow. True it has in some cases, but I think it is less likely to occur in cases of opium narcosis. I agree with Dr. Prewitt that in many cases flagellation is an efficient remedy. I was called to a patient who had taken six drachms of chloroform at one dose. When galvanism, faradism and other ordinary means had failed, I had the man stripped and whipped with switches for a number of hours. Whipping of the soles of his feet was effectual in arousing him. In the case which Dr. Lewis reports, the cutting done in the operation did not arouse the patient. It seems to have been a case in which the operation was indicated.

Dr. Prewitt.—The tracheotomy was done with a view of using the bellows. Now the mode of action of normal or artificial respiration, and the use of the pump are very different. In the normal condition of things, and in artificial respiration, it is the ribs that do the work; whereas in the bellows action the lungs are forced full of air. Now it must be evident that the danger of injury to the lungs is greater, certainly much greater, than in normal respiration.

Dr. Lewis.—In regard to Dr. Porter's suggestion that in morphine poisoning there is less secretion of mucus, I do not think that is of practical importance in this case, as there was a very large quantity of mucus in the trachea; and even if at the time of the operation, secretion from the lining membrane was being lessened, that which had been secreted before was still there, and in considerable quantity. It was sufficient to impede respiration, and on the trachea's being opened he coughed and it came out in large lumps. Respiration was then re-established and went on without impediment either from the tongue, which previous to the operation had to be watched, or from mucus. Theoretically the idea that mucus is not secreted to any great extent, may be very good; but practically I do not think it is. Dr. Prewitt suggests that there is no difficulty in getting air into the lungs, I do not agree with the doctor. The falling back of the tongue, the closure of the glottis, (which does occur at times) and the

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)llection of mucus make it no easy matter to et air into the lungs. So far as the relative anger between the performance of tracheotny, and that of flagellation and turning on ie hose are concerned, I am inclined to think iat tracheotomy is much the safer method. atients treated by flagellation, turning on ie hose and similar methods are greatly exosed. I have seen cases, treated by the ordinary means, in which pneumonia has supervened, and the patients have died. Then too think a patient would much prefer to have small wound in the throat which will heal adily, rather than have the body covered ith welts. So far as the danger from pneuonia is concerned, there are now five cases f this kind on record, including this one, nd none of them have had pneumonia. Dr. 'orter suggested that in the use of the belows the lungs would have to be forced full of air, as he expresses it. I do not think that would be necessary. I think by a moderate injection of air, life could be maintained, and respiration kept up. And so far as I know, no injury has been done by the use of the bellows.

Dr. Porter.—I was merely speaking of the method, and not that it would be necessary forcibly to expand the lungs. The doctor is undoubtedly correct in saying that it would not be necessary to expand the lungs to their utmost capacity

STATE MEDICAL SOCIETY OF ARKANSAS.

The meeting at Fort Smith, April 25, 26, 27, 1888, promises to be the most largely attended since the organization of the Society. More than a hundred physicians have signified their intention to attend, and the following papers have been positively promised, viz:

Annual address of the President, W. P. Hart, M. D.

Report on the Practice of Medicine, A. Dunlap, M. D., Chm.

Report on Surgery, George F. Hynes, M. D., Chm.

Report on Gynecology, T. W. Hurley, M. D., Chm.

Report on State Medicine, H. H. Turner, M. D., Chm.

Report on Medical Education, J. A. Dibrell, Sr., M. D., Chm.

Report on Medical Legislation, D. A. Linthicum, M. D., Chm.

Electricity in Gynecology, C. Bevill, M.D.

Record of one hundred obstetrical cases, W. B. Lawrence, M. D.

One of the maternal dystociæ, R. G. Jennings, M. D.

Antifebrin in the dyspnea of pneumonia and bronchitis, J. S. Shibley, M. D.

Antipyrin in insanity, H. B. Williams, M. D.

Observations on the effects of antifebrin, B. Hatchett, M. D.

Some of the uses of antipyrin other than antipyretic, W. N. Yates, M. D.

Malarial fever, S. C. Burgess, M. D.

Treatment of malarial hemoglobinuria, J. A. Stamps, M. D.

Quinine a destructive agent in the treatment of malarial hemorrhagic fever, C. P. Tobin, M. D.

Cholesteremia, A. C. Jordan, M. D.

Bilious dysentery, B. W. Flynn, M. D.

Biliary calculi, A. J. Vance, M. D.

Abortive treatment of pneumonia, S. P. Green, M. D.

Ergot in congestions, J. C. Minor, M. D.

What has asepsis done, E. Bentley, M. D.

An unusual case in surgery, Z. Orto, M. D.

Hydrocele and its treatment, Thos. Stevenson, M. D.

Report on surgical cases and comments, J. T. Jelks, M. D.

Trephining for removal of osseous spiculæ in fracture of the skull, T. W. Hurley, M. D.

The removal of a soft fibrinous tumor from abdominal parietes with remarks on manner of procedure, George F. Hynes, M. D.

Rhinal and pharyngeal diseases practically considered, T. E. Murrell, M. D.

The relation of physicians to the office of coroner, J. B. Bond, M. D.

Expert testimony, C. S. Gray, M. D.

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From the foregoing it will be seen that the topics to be discussed are mostly of a practical character, embracing the diseases that are commonly met with in our state. Hence, it is suggested that those who intend to be present will formulate their ideas in regard to the topics they expect to discuss, so that the debates will be concise and relevant.

Special Notices.

The sessions of the Society will be held in the hall of the Young Mens' Christian Association.

The registration of members will be from 9 to 11 o'clock on Wednesday morning, at the place of meeting.

The Society will be called to order promptly at 11 o'clock A. M.

Reduced Railway Rates.

Through the favor of the officials of the Missouri Pacific, and the St. Louis & San Francisco Railways, a reduced rate of one and one-third the regular fare will be charged those attending the meeting over their lines. The Missouri Pacific lines in Arkansas include the St. Louis Iron Mountain & Southern and its branches; the Little Rock & Fort Smith, and the Little Rock, Mississippi River & Texas Railways.

Important.—To obtain the reduced rate it will be imperative that those attending, shall, not more than five days prior to the date of opening of the meeting, purchase regular full fare tickets on the above lines to Fort Smith, and secure from the ticket agents a receipt for fare paid on a certificate which will be furnished by the railway agents upon application; and when such certificate is certified to by the Secretary of the Society, the ticket agents at Fort Smith will be authorized to sell the holder a return ticket at one cent per mile, via the same route as traversed in going to Fort Smith. Return tickets must be purchased on or before April 28. No reduction will be granted unless a ticket be purchased and receipt for fare paid be taken.

L. P. Gibson, M. D.,
Secretary.

SELECTIONS.

ASEPTIC CASES FOR SURGICAL INSTRUMENTS.

BY A. HOLMBOE, M. D.
Assistant Surgeon, Dr. Chr. Fenger's Clinic, Emergency Hospital, Chicago, Ill.

The ideal of modern surgery is perfect asepsis. The principles to be followed to reach that end are at present well established. Our method of carrying out these principles, however, is as yet very far from the ideal. When our method is perfect, our asepsis, as far as it rests with the surgeon, will also be perfect. Every detail, therefore, is important. We are to-day disinfecting everything and everybody, so to speak; the only part of our *armamentarium* so far neglected being instrument-cases of various descriptions, pocket cases, and instrument-bags. It is, *a priori*, evident that our old-fashioned appliances must necessarily become more or less infected, and act as veritable germ-carriers; the material used in their construction making disinfection impossible. To prove the correctness of the assertion, the following experiments, suggested by Dr. Fenger, were made. Two of Dr. Fenger's instrument-satchels were used, viz., (A) physician's instrument-bag in active service about two years, and (B) canvas bag (carpenter's bag) used for about three months, never in particularly septic cases, and looked upon as our absolutely "clean" bag.

Experiment 1. Two smooth, polished scalpels, metal handles (all our instruments are provided with metal handles), were sterilized. One (*a*) was put in satchel A, and the latter was wrapped up in an antiseptic dressing to avoid air-infection. The other scalpel (*b*), which may be called the control-scalpel, was immersed in a gelatin-culture fluid.

Scalpel (*a*) was removed after six hours and also immersed in the gelatin fluid. Omitting the technical details, we will simply state the results here: Control scalpel (*b*), negative result. Satchel-scalpel (*a*), after twenty-four hours, gelatin turbid, numerous colonies

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fter forty-eight hours the entire gelatin ass was liquefied.

EXPERIMENT 2. Two sterilized scalpels: ne scalpel (*a*) put in satchel B; one (*b*) con- ol-scalpel.

Control-scalpel, negative result. Satchel- alpel (*a*), after six hours contact with sat- iel B (the same precautions having been ken as in experiment 1), after twenty-four ours, gelatin clear; forty-eight hours, gelatin rbid: fourth day; liquefaction.

Further experiments are in progress, but re not yet finished.

These experiments showed forcibly that ur vehicles for carrying instruments were nsafe, because they could not be disinfected. ; therefore became necessary to replace the ld instrument-bags, etc., by new ones that ould be disinfected by boiling, in five per ent. carbolic acid solution, for instance. To hat end the following outfit was devised, and is now in use in Dr. Fenger's hospital as well s in private practice.

1. *Instrument towels.*—These are ordinary inen towels with a strip of the same material ewed on to form pockets for the instru- ents. These towels were devised about a ear ago by Dr. Fenger's former assistant, Dr. layard Holmes, of this city. I should per- aps, mention that the instruments, when not i use, are kept on glass shelves which are ashed with five per cent. carbolic-acid solu- on once a week. All instruments are boiled r one hour in a similar solution once or wice a week. Instead of one old-fashioned ocket-case, six new ones were made of light anvas, with flaps to fold over the instru- ents, and a tape on the outside to keep it losed. The instruments are kept in position y tape-loops on the inside of the canvas.

To replace our old instrument-bags, one lozen new ones were made. They are sim- ly bags provided with handles and straps of he same material (no leather, buckles, nor ocks are used); the straps are to be knotted. A piece of hard-wood, one-fourth of an inch hick, is used to form a bottom to the bag. By keeping a large number on hand, a fresh ne can be used every day, if desired.

The above designs recommend themselves to general use by enabling us to keep our instruments in, so to speak, aseptic surroundings, inasmuch as the towels, pocket-cases, and instrument-bags, can without injury, be thoroughly disinfected by boiling, thereby avoiding the danger of infection from one source, at least. They are cheap; anybody can make them; and the cost of the material needed for the whole outfit is trifling.—*Med. Rec.*

THE TEMPERATURE OF OUR FOOD AND DRINKS.

Of all nations the American is most in the habit of taking his food and drink at a temperature as remote as possible from that of the body. Ice-water drinking is a national habit, and ice-cream is a national dish predilection for which runs through all classes of society, and becomes a binding force in social, and we might add, scientific and religious gatherings. Americans should, therefore, take an interest in the experimental researches on the temperature of our food and drink made by certain foreign savants whose names are, as is usual, hyperplasic with consonants just in proportion to the rigidity of their science and the seriousness of their inquiries.

The temperature of our food and drinks was treated of by Von Spaeth and Kostjurin a year ago *Munchener Medic. Wochenschr.*, 1886, p.533), and more recently by Uffelmann, of Rostock (Ibid., 1887, p. 999).

Professor Uffelmann reviews the work of his predecessors, and draws his conclusions partly from this, and partly from his own experiments. They bear first upon the temperature of ingesta in health, and the rules laid down are:

1. That, in general, a temperature of food and drink which approaches that of the blood is most healthful. For nurslings such temperature is essential.

2. For quenching the thirst, the best temperature is from 50° F. to 68° F. The favorite American temperature is, as is well

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known, 32° F., and an issue is raised at once between Professor Uffelmann and the American nation.

3. The ingestion of very hot or very cold food or drink in health has a damaging effect, which is increased just in proportion to the rapidity with which the hot or cold substance is taken. Hence the gulping down of ice-water or hot coffee, etc., means eventually, according to the light we are quoting, a mere ventral damnation. If a person takes a drink for the purpose of warming himself, as in cold weather, he can accomplish this by having the drink at a temperature of 116° to 120° F.

4. The use of very hot and cold substances, following or alternating, is injurious to the teeth. But the taking of cold water lessens the injurious action of extremely hot substances upon the stomach.

5. Ingestion of cold food and drinks lessens the bodily temperature, whether it be normal or febrile.

6. Cold fluids lessen the hyperirritability of the stomach.

Cold ingesta raise the tone of the stomach, increase peristalsis, and promote movement of the bowels. Cold food and drinks increase the tendency to cough, according to Uffelmann, by causing reflexly a congestion of the bronchial vessels. Hence, persons with bronchial disease ought not to indulge in cold drinks. It is, however, a common custom to give persons who suffer from pulmonary hemorrhage ice to swallow; and, according to the view stated, this would be an injurious practice.

Hot food and drinks stimulate the stomach more than cold. But after repeated use they lessen the tonus of the digestive tract, and cause congestion and dyspepsia. This condition has been observed after the so-called hot-water cure. Hot drinks tend to lessen bronchial irritation, and this is one cause, possibly, of the success in some cases of the hot-water treatment of consumption.

Extracts from a Letter to the Philadelphia Med. Times, Dec. 15, 1887. From Dr. C. L. Mitchell, of Philadelphia.

In regard to substitution and adulteration, it must be admitted that in numerous cases the charge is a true one, and the evil is of growing dimensions. With the reduction in the margin of profits caused by the fierce business competition of the present day, comes the temptation to adulterate or substitute inferior quality. No condemnation can be too severe for the man who thus trifles with human life; and if he cannot carry on his business honestly, he had better abandon it and seek some other occupation.

Again, the outcry is made that the physician is too apt to prescribe various remedies, more or less proprietary in character, put up by large manufacturing concerns and introduced by skilled advertising, and thus require the druggist to carry an endless variety of such articles in stock, many of which are seldom or only once called for, and thus remain a dead loss to the proprietor. But is the physician much to blame? True, he is sometimes imposed upon by the bland and suave canvasser, and the glowing printed endorsements of his professional brethren in favor of some new remedy—*vide* stenocarpine—but when he sees remedies in convenient and compact shape, of appearance much more elegant than those he can procure from the corner druggist, and of at least equal efficacy, is it to be wondered that he should prefer X., Y. or Z.'s manufactures to the oftentime imperfectly prepared remedies of the pharmacopeia?

And why should the druggist complain? As long as he keeps open store he must submit to the unalterable law of traffic, namely, the needs of the customer are to be supplied. He will buy Lubin's extracts for Miss Jones, and Alfred Wright's for Miss Brown. Why should he not keek Bromidia for Dr. A, Papine for Dr. B, and Dioviburnia for Dr. C. Although he makes a great outcry about being obliged to carry so much stock, he in reality

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does it to a very limited extent; and, outside of a few standard preparations, shifts the burden on his wholesale druggist and lets him carry the supply for him. Nearly all the large manufacturers have established depots for their goods in the principal cities, and the druggist very rarely lays in a stock outside of his actual present need, unless he is sure of a steady sale. And let him remember also that if he don't keep what is called for, some one else will, and his customers will be sure to go where their needs receive best attention.

And here let a word be said for that much-abused class, the modern manufacturers of pharmaceutical specialties. The medical and pharmaceutical profession owe to them a great debt. It is their industry and their capital which have developed the perfection of the coated pill, and the compressed tablet, the pancreatic ferment and the scale pepsin, the smooth and palatable cod-liver oil emulsion, and the perfected extracts of malt. To their energy do we owe the modern methods of treating disease with pre-digested and concentrated foods—a plan which has been the means of prolonging many valuable lives. They have spread the fame of American pharmacy over the entire globe, and established its supremacy against all competitors; therefore let them receive at least just recognition and honor for their labors.

A Case of Syncope Following Injections of Water into the Ear.—S. G. Gerard, M.D., of Vicksburg, Miss, in the *Post Graduate* says. A lady, forty-five years of age, and of robust health consulted me on account of a constant roaring in both ears and rapidly increasing deafness. This state of affairs had existed for more than a year. She was of non-hysterical temperament. A watch held three feet from the right ear could be heard; held five inches from the left ear, could be heard very indistinctly.

The drum-membrane and external auditory canal of the right ear appeared to be normal; the drum-membrane of the left ear and external auditory canal were hyperemic and covered by a muco-purulent discharge. Perforation of drum-membrane was not observed. On examining the pharynx, posterior nares, etc., they were found to be in a normal condition, with no history of ever having been inflamed. I gave injections of hot water into the left ear. The benefit was so marked that I decided to try this remedy several times. On applying water the third time, the patient complained of dizziness, which soon passed away.

The next application was followed by alarming symptoms: the patient fell into a profound syncope, which appeared likely to prove fatal. Free use of stimulants, at the end of one hour and twenty minutes, revived her but only to be followed by severe dyspnea which lasted about two hours. I was compelled to adminster chloroform during this latter attack, as it was the only remedy that would control the symptoms. From actions of patient, I would say the obstruction to breathing was located in the larynx. She would constantly clutch her throat as if making an effort to remove some foreign body.

Auscultation over the lungs gave no sign of anything wrong, but at larynx there was a whistling sound as if it was tensely constricted.

Dr. Roosa, in his work on the ear, cites a similar case. (Page 335.) I believe the hot-water injections caused these symptoms, by reflex action on the laryngeal and cardiac branches of the pneumogastric nerve. I have every reson to believe that my patient was unconscious during the entire paroxysm.

The Cause and Cure of Abnormal Sexual Desire—A philosophical and ascetic writer in the *Med. Standard* says the following regarding abnormal sexual desire; In the majority of cases sexual desire which can not be healthily controlled by the will, is due either to constipation, improved food, improper clothing, improper literature, ascarides, leucorrhea, or analogous causes. Satisfaction of

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sexual desire will not remove these causes. Until they are removed the satisfaction of it in any way is but adding fuel to the flame. The results of so-called sexual starvation are due to partial sexual gratification in an abnormal, albeit unconscious, way, not to abstinence from sexual intercourse, and are cured by it. Cold sponging, proper, diet proper clothing, proper literature, and proper attention to the rectum will cure all cases of sexual starvation, except such as are reversions to the savage type of unrestrained debauchery, or depend upon cerebral or spinal disease or mal-formation. In the first case, training is indicated, and in the last, hospital treatment, not marriage or sexual intercourse. Christianity teaches restraint of the 'old man Adam.' Evolutionary ethics teach that the higher the organism, the better developed and the greater the checks on the primitive instincts of the race. Where theology, the dominant philosophy, and clinical experience join in condemning a procedure of doubtful morality intended to benefit one individual at the possible expense of another, the physician incurs a great responsibility who prescribes it." *Med. Record.*

ALUM IN BAKING-POWDER. The report of Professor Wiley, chief of the Department of Agriculture at Washington, D. C., concerning the presence of alum in baking-powder, states that it enters largely into the composition of forty-four prominent brands which are consumed in considerable quantities. It is a notable fact that most of the baking-powders sold in bulk, by weight, and all "premium" powders the proprietors of which offer gifts to the consumer, are largely composed of alum. This substance is used in place of other acid salts and entering constantly into the baking of biscuit, rolls, cakes, etc., becomes quite a factor in general diet. On this account, in view of the injurious effect on the economy of a continued absorption of alum, its use in the manner just mentioned should be proscribed by law. The abuse certainly comes under the head of food adulteration, and there would be little difficulty in the way of interference. It is sheer neglect that allows this injurious practice to go on unmolested. Chemical analysis has given the names of forty-four brands of adulterated baking powders to the public. If the law fails to apprehend the manufacturers, it is an inconsistency for which no explanation is adequate. *Med. Bul.*

SUTURE OF A DIVIDED ULNAR NERVE.—Jencken reports a case of unusually rapid restoration of function after suture of the ulnar nerve seven months after its division. Trophic changes had taken place in the parts supplied by the nerve, and anesthesia was complete when the patient came under observation. The divided ends were found an inch apart, and could be secured in apposition only by forcibly flexing the wrist. Sensation had in great part returned four days afterward, and was perfect in a fortnight. The skin and muscles immediately began to recuperate, and the case resulted in a perfect cure.

[This very rapid return of function recalls the suggestion of Mr. Bowlby last year that the degeneration of the peripheral portion of the divided nerve is followed by a regeneration which progresses slowly as long as the ends are separated, to terminate, probably, in a final degeneration. But if during this period of slow regeneration the ends of the nerve are brought in apposition, the peripheral portion is united to the centers of nutrition, and regeneration may become very rapid.]

TREATMENT OF CILIARY BLEPHARITIS.—Dr. W. Roeder observes that obstruction of the nasal duct and blenorrhea of the lachrymal sac, as well as conjunctival inflammation, may occasion disease of the roots of the cilia, for the pus cells combine with the stagnant tears and form an emulsion which easily overcomes the resistance of the fat of the sebaceous follicles and penetrates into the hair follicles. The cilia then swell, and the inner hair sac becomes infiltrated with pus-cells. The pus cells are at first retained by the swollen hair but ultimately burst through and form crust

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etween the cilia. If the process be allowed o continue, a contraction of a cicatricial haracter occurs in the outer root sheath so hat the new hair can no longer push its way orward, but grows backward, thus assuming hook-like form. Recovery from the ble- haritis occurs only after all diseased hairs re extracted. In addition, however, it is nperative that the disease of the lachrymal assages should be completely cured.—*Klin- che Monatsblaetter*, No. 7, 1887.

What Ails the Modern Girl?—A writer n *Harper's Bazar* makes a pretty close diag- osis for a layman, as to what ails the mod- rn girl, at least a good many of her. It is ell deserving of record as an *indicatio cau- alis* in the disease which is so often the des air of the doctor. "The modern girl hardly nows what she wants, whether it is the igher education, an esthetic wardrobe, love or fame. She plays tennis and progressive uchre, and flirts and does Kensington work nd reads Herbert Spencer, and very often rites; she dabbles in music, and talks theoso- phy, and if there are more things in heaven nd earth than are dreamed of in her philos- phy, one questions what they can be. Withal, he is as restless as the wind. She does not ove the quiet of home; she lives on excite- ment; she goes to Europe, to the springs, he mountains, the theatres, the receptions, if he can get there, or to the modiste; she can lways fall back upon clothes as a diversion, nd, when everything else fails, she has ner- ous prostration and a trained nurse. In fact, he chief trouble with the modern girl, be she ich or poor, is that she either does too much, eeps her nerves on the strain, and by and by oes to the other extreme, and does literally othing but consume drugs, talk of her ills, nd consult the Christian scientists; or she has o real interests, fritters, away her time in shal- ow pursuits, becomes pessimistic and dyspep- ic, dissatisfied with herself and all the world; ries and questions if life is worth living, and eels especially blue on holidays. The emedy for all this is, perhaps, an object in ife; those who are well and unselfishly oc- upied do not question if life is worth living; hey know it is; and whether they are busy n the shoe factory, behind a counter, at the reside, in the kitchen or the dining-room, so long as they are busy and not shirking or reaching forward for something more con- genial, and neglecting present duty, their minds are at rest and uninvaded by despon- dency. One of the best remedies for depres- sion of spirits is the effort to bestow happi- ness; it has been known to prove effectual when all other methods have failed; when novels and new gowns and cod-liver oil and bovinine and bromide; when admiration and flattery are no more serviceable than an ab- racadabra or any heathen spell. Melancholy or other ills of this nature are direct result of a too strong egotism, and an absorbing inter- est in others is a safe and agreeable medicine, and is usually the last thing a modern girl tries."—*Boston Medical and Surgical Jour- nal.*

Amylene Hydrate.—The *British Med. Journal* of Jany 14, 1888, contains an ac- count of a new hypnotic called Amylene Hy- drate," introduced by Prof. V. Mehring. In its physiological effects it is said to occupy an intermediate position between chloral and paraldehyde. Mehring gave the drug to sixty patients in dose varying from 16 to 77 grains, he observed no unpleasant after effects no nausea, headache, or digestive disturbance. Scharschmidt found that so large a dose was not necessary, although he corroborates V. Mehring's statement that there was no appre- ciable disturbance of the respiration or pulse- rate. In 80 per cent. of the cases sound sleep of from five to seven hours' duration was procured by doses which did not exceed 45 grains, and were in some instances as low as 20 grains: by repeating the dose, or giving a large one, sleep was, in all the cases where failure was at first noted, subsequently ob- tained. In 24 of Scharschmidt's cases there was much excitement, and by producing sleep under such conditions as mania, delirium tremens, and epilepsy or hysteria with deli. rium, amylene hydrate appears to have proved itself superior to urethan. Too large a pro- portion of pharmacological discoveries have ended in disappointment, and it would be rash, in the face of recent experience, to ex- press a confident opinion that the new hyp- notic will prove as useful and as harmless in the hands of other observers as it has done in those of V. Mehring and of Scharschmidt, but as our contemporary the *Therapeutic Gazette*, which has published an excellent epitome of the papers in the *Therapeutische Monatshefte*, observes, its prospects as yet appear very promising.

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THE REFLEX INHIBITORY ACTION OF CUCAINE AS A DIAGNOSTIC FACTOR.—Mr. Harry Fenwick read a paper before the Society of London upon a long series of cases in which pain in various parts of the body had been temporarily relieved in 30 to 180 seconds by urethral injection of 20 per cent. solution of cucaine. Cases of its action in neuralgic pain of the cranial, cervical, intercostal, renal, and lumbo sacral nerves were mentioned, and the reasons for this power were roughly demonstrated to the Society by means of decapitated frogs. Thus, without a vesico rectal injection of cucaine, the leg of the decapitat ed frog was rapidly jerked out of a weak acid solution in some fraction of a second; but after cucaine had been injected into the bladder or rectum, the leg was not withdrawn until after 20 to 30 or more seconds. This remarkable inhibitory power was only observed when weak acid solutions (that is weak irritations) were used. Cucaine possessed no power of delaying the reflex excitability consequent upon stronger acid solutions. The following propositions were formulated:—1. Slight nerve irritations (as neuralgias) of any part can be relieved by injection into the urethra of a few drops of a 10 or 20 per cent. solution of cucaine. 2. Severe nerve irritation, as in the pain of carcinoma, inflammation, etc., cannot be thus relieved. Mr. Fenwick has used this knowledge largely in the differential diagnosis of urinary disease. Thus, if a renal pain was immediately relieved by cucaine, he judged the neuralgia to be due to a slight irritation, such as that experienced in lithiasis, congestion, or grit. If unrelieved (and cases were given) he diagnosed more serious cases (for example, stone, dilated pelvis, etc.) He then drew attention to the value of cucaine in operations upon the bladder and urethra in preventing damage to an unhealthy kidney. M. Tuffier's experiments upon renal congestion produced by distending the bladder or injuring the walls were mentioned, and it was submitted that this flooding of the kidney—which, if the organ was damaged, led to rigors, suppressions, and suppurations.—might be partially or wholly prevented by the inhibitory action of cucaine upon the renal circulation—Mr. James Black asked whether Mr. Fenwick had noticed any serious toxic symptoms after injections of solution of 20 per cent. of cucaine. He himself had used a 20 per cent. spray to remove growth from the inferior turbinated bone, and the patient became collapsed, livid cold, and almost pulseless. A second case had exhibited the same alarming symptoms.—Mr. Bowreman Jessett said he had removed an enlarged gland from the neck after the injection of 10 minims of a 20 per cent. solution, but serious symptoms had followed. He added that it was very difficult to obtain relief from pain by means of cucaine in removing polypi from the nose —Mr. Bernard Pitts asked Mr. Fenwick whether he had tested remote body sensation in a healthy subject after urethral injection. In a case of his own faintness had supervened, with general numbness and coldness of the surrounding surface.—Mr. Walter Pye said he had seen many cases of fainting following the use of cucaine He himself has felt faint after 5 per cent. solution.—*British Med. Jour.*

THE USE OF CALOMEL IN THE PREVENTION OF PITTING IN SMALL-POX.—In order to prevent the forming of pustules, or the disfiguring marks, on the face in small pox many methods have been recommended, but none can boast of sure and successful results.

Among the remedies which have gained great reputation may be mentioned the application of different fats, collodium, tincture of iodine, a solution of carbolic acid or of corrosive sublimate, also cutting of the pustules and cauterizing them by uitrate of silver, and finally, various forms of masks on the face, or continual cold compresses. Although the latter would seem to give the best results, it cannot be always employed, either because not everybody can support cold compresses, or because this application is troublesome to make, as it requires constant attention.

Having frequently had such cases under my care during the small-pox epidemic of last summer at Warsaw, I convinced myself that calomel, applied as powder on the face, does not prevent the development of vesicles from the papules; but when vesicles or pustules were developed, it caused them almost immediately to dry up, and in this manner prevented the formation of marks. How and why calomel acts in these cases I do not pretend to explain. However we may suppose that possibly several agents have a share in producing this result. Perhaps the calomel acts partly as calomel, partly as sublimate, or partly, perhaps, as metallic mercury, since calomel becomes decomposed into these two latter substances under the action of light; and the mercurials then act either by immediately destroying the microorganisms or by preventing their development.

In my cases I employed calomel alone, in the form of powder, dusting it over the face, or I mixed it with starch in the proportion of

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twenty to thirty per cent. I suppose that instead of calomel, the oxide of mercury might also be employed with success. As regards the strewing of calomel into the eyes, sometimes adopted with a therapeutic aim, we need not fear that it will do them any injury.—Dr. Joseph Drzewieck, of Warsaw, Russia.—*Med. Record.*

Chronic Tea Poisoning.—Dr. Bullard gives, in the *Boston Medical and Surg. Journ.* the details of seventy-four cases of chronic tea intoxication investigated by him. His conclusions are that the action of tea is cumulative; its action is more pronounced on the young and on those subject to anemia or physically depressed, although persons otherwise healthy, occasionally show toxic symptoms; the average amount of the beverage required to produce poisonous effects, in persons accustomed to its general use is a little less than five cups per day. Chronic tea poisoning, Dr Bullard asserts, is a common affection, its symptoms being usually loss of appetite, dyspepsia, palpitation, headache, vomiting and nausea, and nervousness combined with various forms of functional nerve affections, such as neuralgia, hysteria, etc. Besides these, constipation, and pain in the left side are frequent.

Tuberculous Laryngitis Cured by Lactic Acid and Iodoform.—Luc reports, in *l'Union Médicale* of February 16, 1888, the case of a young woman who was the subject of pulmonary tuberculosis, and in addition tuberculosis of the larynx. After anesthetizing the larynx with a solution of cocaine, 1 to 5, he destroyed the granulations most prominent with the electric cautery. The subsequent treatment was the application of lactic acid fifty per cent., and powdered iodoform. The laryngeal lesions healed; the pulmonary condition was uninfluenced.—*Med. News.*

A Health Resort in Brazil.—San Paulo, situated in the highlands of Brazil, has a delightful climate in both winter and summer. The atmosphere is dry and exhilarating, the barometric range not exceeding three-quarters of an inch during the year. The average maximum temperature in the hottest month, January, is 80° in the shade; in the coldest month, July, 72°. Two hundred and thirty-five bright sunshiny days there per annum.

It is recommended by Dr. Walshe as a resort for pulmonary invalids.—*Brit. Med. Jour.*

Chloroform and ether are both antagonistic to cocaine, and the inhalation of either will allay the convlsious due to a poisonous dose of the latter. On the other hand, cocaine may be used as an antidote in cases of poisoning by narcotic agents, especially such as cause great depression of the respiratory and cardiac centres.—*Indep. Prac.*

Dr. Fordyce Barker says that the most valuable remedy for hemorrhages, occurring near or at the climacteric, is a combination of equal parts of fluid extract of hamamelis and fluid extract of hydrastis.

Small-Pox has been declared no longer epidemic at San Francisco, only sixteen cases and one death having been reported since March 1. There are no cases at Key West and it is hoped the disease has been eradicated there.

Subscribe for the "American Journal of Ophthalmology." The only monthly journal published on the subject. Terms, $3.00 per annum. Sample copy mailed on application, J. H. Chambers & Co., Publishers, St. Louis.

American Medical Association, Cincinnati, May 7 to 12, 1888.

For those who desire to attend this meeting the Vandalia Line has made a rate of one and one-third fares for the round trip. When you purchase your ticket to Cincinnati, ask the ticket agent for a certificate, and on this you will secure your return ticket. This line is a favorite Cincinnati line on account of its daily line of elegant coaches and Pullman sleepers, run for the exclusive use of Cincinnati passengers. Address Mr. T. B. Cookerly, ticket agent, 100 north Fourth street, St. Louis, for any additional information. A large portion of the members of the Association will go

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via the Vandalia, and we recommend our readers to go with the party this way.

Doctors Attention!

If you anticipate attending the meeting of the American Medical Association, at Cincinnati, May 7 to 12, inclusive.

Take the "Bee Line" and "Big Four" Railway.

A first-class line in every respect. Tickets will be sold at one and one-third fare for the round trip.

Call at "Bee Line" office, corner Fifth and Chestnut street, St. Louis.

Attention! Delegates to the annual meeting of the A. M. A.—The annual convention this year is at Cincinnati, a most desirable place to visit, on account of being so easy of access and so generally attractive.

This year's meeting promises to be one of the largest in the history of the organization and the most interesting.

To all from this section of country who desire to go we would commend the O. & M. route. Special rates will be given delegates and their families. In our next issue we will present additional information.

Diseases Peculiar to Females.

It has been believed, almost universally, by the medical profession, that modern civilization developed a variety of uterine and obstetrical diseases unknown, or at least not diagnosticated, until within a comparatively recent period. The women of uncivilized people, and those of the lower orders among ourselves, are exempt from many of the ailments of their more refined sisters, we may therefore say uterine disease can be regarded as progressive, whatever may have been the development of females disorders, owing to modern methods of living. A great advance has been made in the treatment of these troubles; no department of medical science has surpassed gynecology in its strides forward, and women, appreciating this fact, do not now, as in former times, hesitate to apply for relief. All reflecting practitioners grant that local has, in many instances, overshadowed general treatment, that the latter is equally important, there can be no question. We have found the following prescriptions to have the most beneficial effects:

Suggestions.

Uterine diseases cannot be entirely cured when the patient suffers with a torpid intestinal tract, and aperients should always be employed in connection with local or general treatment.

℞ Ext. cascara segrada flu., fl. oz. j.
Dioviburnia, - fl. oz. xv.

M. Sig. Desert to tablespoonful, more or less, three times a day, in wineglassful of hot water, as may be required.

Threatened Abortion.

A prescription containing the following should be used during the entire pregnancy.

℞ Hyd. chlor. corros., - gr. j.
Potass. iodid., - - dr. j.
Dioviburnia, - - oz. xvj.

M. fl. sol. Sig. Tablespoonful in wineglass of hot water three times a day, after meals. The efficacy of this treatment has been tested after repeated abortions and miscarriages, and healthy, vigorous children delivered.

Menorrhagia.

The following has been found to be very efficacous.

℞ Ext. ergot flu., - fl. oz. j.
Ext. geranium flu. - fi. oz. j.
Dioviburnia, - fl. oz. xiv.

M. Sig. Tablespoonful three times a day in a wineglass of hot water, or if necessary it can be repeated every two hours.

Amenorrhea.

An excellent prescription is the following:

℞ Citrat. iron and quinine, dr. j.
Dioviburnia, - - oz. xvj.

M. Sig. Tablespoonful after meals, or if desired the iron can be exhibited separately. Two of Bland's 3 gr. ferruginous pills before meals.

If patient is full habited, iron should be omitted. The bowels should always be regulated.

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REPORT ON PROGRESS.

GENERAL MEDICINE.

BY R. M. KING, M. D.

I. SCHEUERLEN'S CANCER BACILLUS.—*Amer. Pract. and News.*

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VII. ERYTHROPHLEIN.—*Brit. Med. Jour.*

VIII. TREATMENT OF MIGRAINE WITH ANTIPYRIN.

SCHEUERLEN'S CANCER BACILLUS.

Horatio R. Bigelow writes as follows from Berlin to the Boston *Medical and Surgical Journal*:

Those who watched the painful fetal development, birth, and growth of the bacillus tuberculosis, and of the coccus of erysipelas, will not be surprised that the bacillus of cancer is suffering parturition throes quite as tormenting. Every time a new pathogenic germ is heralded, the mass of unlucky bacteriologists, who have no concern in it, rise up to strangle it before fully born. Six years ago the sages of pathology predicted its coming, basing their opinion upon a logical balancing of anomalous instances. Every student who has watched with becoming intelligence the march of science, who has seen the old landmarks of etiology and pathology leveling themselves and giving place to established facts, who has noticed how one well-established discovery led up to another, and how probable the deduction was that anomalous forms of disease might be due to similar causes, will not now be astonished that Scheuerlen has announced a new bacillus. Fraenkel's arrangement, to those who can read between the lines, amounts to nothing as scientific argument. S. Guttman and Stabsartz Schill both confirm the results after personal experimentation and investigation. Schill has been for years engaged in the same line of inquiry. Not in one instance or two did Scheuerlen find these bacilli, but in every case examined by him. Because Koch was not fortunate in finding it, this has no bearing whatever upon the question; neither did he find the coccus of erysipelas, but yet no one to day doubts Fehleisen's work. If it be true that certain eminent doctors of New York have travestied this matter, as the telegrams of yesterday report, it only lowers them as scientists in the eyes of those competent to judge, and presupposes a snap judgment of a subject which they have never investigated, and concerning which, consequently, they are incompetent to pass an opinion. There is a bacillus of cancer just as really and absolutely as there is one of consumption. Its morphological characteristics are not yet clearly defined, and there are many other doubts to clear up and questions to answer. But all of this can come only after many months of hard and patient labor. It stands exactly upon the same ground that the coccus of erysipelas possessed when announced, and it will possibly go through the same fiery ordeal that all original work must go through before accepted. To be a

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competent critic there are certain well-recognized prerequisites:

1. A man must be thoroughly well trained himself in habits of research, and especially in those lines of inquiry related to the subject in hand.

2. He must come to his work free from any preconceived ideas that would warp his judgment, and free from personal feeling which would belittle his learning.

To those who know the ins and outs of professional feeling in Berlin, the fact that the discovery was made in Leyden's clinic and not elsewhere is not without significance.

Hydrochlorate of Apomorphine in Dry Cough.

This drug has been extensively tried by Dr. Socquart, of Brussels, as a remedy for certain kinds of cough, and he speaks highly of its value. The kind of cough in which it has proved most successful is a distressing and frequent hacking, unattended with expectoration, or with exceedingly difficult expectoration. The improvement of the patient's condition is usually effected in a few days. The drug is, as a rule, well borne, although a few individuals manifest a special susceptibility to its action, and rarely nausea, colic, and diarrhea result from its employment. The dose is a minute one, only about one-twentieth grain of this alkaloid being given in water in the twenty-four hours. As the solution rapidly alters by keeping, it is advised to prevent its decomposition by the addition of a few drops of hydrochloric acid, which does not interfere with the therapeutic effects.

The Etiology of Rheumatism Considered from a Bacterial Point of View.

Dr. Alfred Mantle (*Brit. Med. Jour.*) draws attention to the circumstance that there are certain conditions of the body alike favorable to the development of rheumatism, scarlatina and erythema nodosum. This, he says, argues that all these diseases are brought about by a similar poison. Holding these views, he set about making investigations in rheumatism. A dram of serum was withdrawn, under the strictest antiseptic precautions, from the knee joint of a patient suffering with acute rheumatism. With this serum several sterilized tubes of gelatinized meat-infusion were at once inoculated, and in each tube a copious growth took place. He had found two kinds of bacteria—a micrococcus and a small bacillus. Cover glass preparations of blood and serum showed micrococci as single cocci or pairs, and in acute cases zooglea masses; in addition, small, short, thick bacilli were also seen, either single, in pairs, or in colonies. These bacteria were easily stained with methyl-violet, with fuchsine, or by Gram's method. In two cases of purpura rheumatica he found no bacilli. In one case of gonorrheal rheumatism bacilli were found only in the blood. In chronic rheumatism and rheumatoid arthritis the bacteria were found. Might not the chemical products of these bacteria be lactic acid and thus form the chief ptomaine of the diseases? The author found that cultivations of the bacteria of rheumatism, amygdalitis, erythema nodosum, and scarlatina, produced lactic acid fermentation in sterilized milk.

The Time for the Administration of Acids, Alkalies, Etc.

A correspondent of the *Brit. Med. Jour.* says: "My teacher, Sir Robert Christison, as far as I can remember, taught us the following rules:

Alkalies should be given before food. Iodine and iodides should be given on an empty stomach, when they rapidly diffuse into the blood. If given during digestion, the acids and starch alter and weaken their action. Acids, as a rule, should be given between the digestive acts, because the mucous membrane of the stomach is in a favorable condition for the diffusion of the acid into the blood. Acids may be given before food when prescribed to check the excessive formation of the acids of the gastric juice. By giving it

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before meals you check the osmosis stomachward of the acid forming materials. Irritating and dangerous drugs should be given directly after food, such as the salts of arsenic, copper, zinc, and iron, except where local condition require their administration in small doses before food. Oxide and nitrate of silver should be given after the process of digestion has ended; if given during food, chemical reactions destroy or impair their special attributes, and defeat the object for which they were prescribed. Metallic salts, especially corrosive sublimate, also tannin and pure alcohol, impair the digestive power of the active principle of the gastric juice, so should appear in the stomach during its period of inactivity. Malt extracts, cod-liver oil, phosphates, etc., should be given with or directly after food, so that they enter the blood with the products of digestion.

Indications for Nitro-Glycerin.

The value of nitro-glycerin in various diseases, as in angina pectoris, hemicrania, etc., and also in sea-sickness, certain forms of anemia, etc., depends on the existence in these of an irregular distribution of the blood. This abnormal condition may be recognized by a certain grade of pallor of the skin, especially of the face, an appearance co-existent with a weak pulse and small radial arteries, hard and frequently situated at a certain depth. When, on the contrary, headache and neuralgia occur in persons with chronic congestion of the subcutaneous vessels of the face, nitroglycerin is contra indicated; and similarly it should not be used in asthma when the face is congested from the effects of the emphysema. Thus it may be said that the best therapeutic results from nitro-glycerin may be obtained in those cases in which angina pectoris, neuralgia, etc., are associated with pallor of the countenance.

The condition of the pulse is the best indication for the use of nitro-glycerin, and the safest guide for the determination of the time in which one should begin the cure. The smaller the radial artery is, so much the more rapidly does it dilate under the influence of the drug, and so much less are the secondary effects produced by it; on the contrary, the fuller the pulse, and the more tense the radial artery, so much less this resents the influence of it.

When the pulse is small, the usual dose of one drop of a one-per-cent solution is sufficient, while if the pulse is large, two drops may be required to obtain the full effect. When the radial is soft and the pulse weak, smaller doses should be given—one-half to one-fourth of a drop. The sensations experienced by the throbbing and pain in the head as well as the distention of the radial artery under the observer's finger, should be the guide for the increase of the dose.

The Value of Tincture of Strophanthus.

Dr. Hochhaus thus summarized his observations of the effects of tincture of strophanthus:

1. For a valvular weakness in the stage of compensation disturbance, tincture of strophanthus is an excellent remedy, in certain cases, to retard, strengthen, and regulate the cardiac action. The retardation occurs first, while the regulation effect only takes place, as a rule, after a few days. Dyspnea and edema are promptly relieved. But the favorable effects, in about one-half the cases, do not appear with the regularity and safety peculiar to digitalis; and in most cases in which strophanthus failed digitalis was effective. Digitalis has, generally, a quicker and more thorough effect, especially in causing diuresis, while strophanthus affects a disturbed respiration far more favorably. It is more difficult to indicate strophanthus than digitalis in cases of valvular weakness, so that it is almost impossible to say beforehand in what cases srtophanthus will probably be successful.

2. In chronic degenerations of the cardiac muscle, with usually a small, frequent, and irregular pulse, great difficulty in breathing, and edemas, tincture of strophanthus may be relied on.

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3. In acute and chronic nephritis the effect of strophanthus is not so marked as in the above mentioned affections. The dyspnea often yields to its influence as in other diseases, but the diuresis and edemas are not favorably affected by it.

4. In cases of palpitation and apnea of nervous origin strophanthus often gives marked relief.

5. Edemas of a cachectic character may be also favorably affected by tincture of strophanthus.

6. In some cases the drug has secondary effects on the digestive tract, causing a loathing of food, followed by choking and vomiting after eating, and sometimes by severe diarrhea. But, as a rule, the aversion to food is the only disturbance, and this passes off when the stomach becomes used to the drug.

7. Hochhaus advises to begin with doses of gtt. vj, t. i. d., in a tablespoonful of water or wine, and to add gtt. ij daily to the dose until the effect is obtained; though it is not advisable to give more than gtt. xx t.i. d. Gtt. iij t. i. d. is the proper dose to begin with for children, but the doses should not exceed gtt. v t. i. d.

8. The effect usually appears on the second or third day, and generally lasts a week or two weeks, though there is considerable variation. Hochhaus has never seen a cumulative effect, even after long use of the drug.

9. While strophanthus cannot lay just claim to all the praise bestowed upon it, it is valuable as an occasional substitute for and ally of digitalis.

[Mariet and Conebemale claim that strophanthus thus greatly increases the secretion of urine and elimination of urea. It yet remains to be seen whether this increased flow of urine is due to arterial tension, or to a stimulating effect on the secreting structure of the kidney. Accepting either hypothesis, or both as true, its true therapeutic value for a time will remain unsettled.

To our mind strophanthus does beneficially influence the heart's action, so much so that blood-pressure is increased, and irregularity and intermittency of pulse overcome.

This we have witnessed several times in its use recently. Dr. Haas, of Prague, has recently published some interesting facts in regard to the action of this remedy. He claims that in afebrile patients thirty drops produced an impression in five hours, while in febrile cases fifty drops were necessary. Always after its use the heart's action seemed quieter, and its effect lasted from four to five days without interruption. He also found that a slowing of the pulse and a loss of a visible cardiac impulse, which became diffused, seemed to occur. He thinks that this drug quiets the heart's muscle, and that its apparent tonic effect is due to relaxation of the arterial walls, and lessening of the obstruction to the flow of blood.

But the experiences and conclusions of such investigators as Fraenkle, Guttman, Langgaad, Loew and Hochhaus differ so widely and radically as to seriously unsettle for the present the true physiological and therapeutic status of this remedy].

Erythrophlein.

This African product has been the subject of a lively debate in the Berliner Medicinische Gesellschaft (*Berliner. Klin. Woch.* 1888, March 5, also February 27). Dr. Lewin asserted that it possessed a local anesthetic action far stronger than that of cocaine. Professor Liebreich replied that the sample examined by Dr. Lewin was in reality a snake poison, and that the rosy red coloration produced by evaporation with sulphuric acid is shown also by snake poison, and even by dried egg or serum-albumen. Dr. Scholer read a paper at the last meeting of the above society, in which he confirms Lewin's results. An erythrophlein solution of $^1/_8$ per cent. strength, when dropped into the eye gave rise to a good deal of irritation at first, but perfect insensibility of the cornea ensued in about twenty minutes (or half an hour). The pupil was not affected, and intra-ocular pressure was lowered, but a slight degree of hyperemia of the conjunctiva persisted for a long time, and the subject of experiment com-

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ained of a feeling of weight in the upper
l, a sensation as of a veil before the eyes,
id of interference phenomena—for example,
ilored rings. On the other hand, Dr.
oewenhardt, of Breslau, writes in the *Ber-
i Klin. Woch.* (March 5), to the effect that
) obtained no anesthesia, bnt a considerable
igree of hyperesthesia, after subcutaneous
jection in animals, and found that he could
sily produce sloughing. Dr. Epstein, of
urnberg, in an original communication to
e *Centralb. f. Klin. Med.* (March 3), finds
at erythrophlein has only a slight local an-
thetic action when subcutaneously injected,
id that a good deal of pain is caused by it.
) far then this last observer is opposed to
r. Lewin, who said in his communications
the Berliner Med. Gesellschalt that ery-
hrophlein has a marvellous power of produc-
ig anesthesia. The difference of opinion
volved by this statement has had the effect
if bringing a number of experiments upon
he field of action and no doubt precise re-
ults will soon be afforded from uniform
amples of erythroplein.—*Brit. Med. Jour.*
larch 10, 1888.

[For several weeks past the medical and
ublic press, all over over the country, have
emed with praises and testimonials as to the
onderful local anesthetic effect of the above
amed remedy.

It stands out boldly as the rival of cocaine,
nd if half that is claimed for it could be
roven, it has already distanced its older and
reviously more firmly established, competi-
or. Erythrophlein is a chlorhydrate obtained
rom erythrophleum, or noya, a plant em-
loyed by the natives of Africa to poison the
eads of their arrows. It has been recently
mployed in ophthalmic practice and like most
f new remedies suddenly introduced starts
ut with a hurrah and enjoys a greater repu-
ation at present than it will in less than half
decade from now when its true status and
orth is more intelligently appreciated.

Dr. Lewin in a report read before the Ber-
in Medical Society, has given the result of
is investigations into the physiological prop-
rties of the African noya poison. He stated, says the *Med. and Surg: Reporter* of March 31, that a concentrated aqueous solution of the poison produced insensibility with some irritation of the cornea, which appeared later than the anesthesia from cocaine, but lasted for eight or ten hours. It diminished the pulsation of the frog's heart from thirty to eight per minute, and induced paralysis of the extremities. Similar effects were produced in dogs, which also exhibited marked dyspnea, and peculiar convulsions, affecting the eyelids, the muscles of the trunk and those of the intestines, but not the paralyzed limbs. Then decreasing sensitiveness was observed, and death occurred without convulsions. These effects were more marked when alcoholic extracts of the drug were used. In the pigeon, vomiting, diarrhea, dyspnea, convulsions and death were caused by aqueous and alcoholic extracts, injected subcutaneously; but administered by the beak vomiting and diarrhea were the only effects produced.

Lewin's experiments with this drug have been corroborated by other observers. In has long been used by the natives on the west coast of Africa as a test in criminal cases besides as a valuable remedy in dysentery, diarrhea, and colic. Lewin mentions as one of its effects its peculiar property of causing stiffness and insensibility of the tongue when taken into the mouth.

He also found that weak watery solutions of this substance "injected into the eyes of cats, caused after 15 or 20 minutes an anesthesia which lasted from ten to 24 hours." Injected into frogs and other animals, they caused diminished frequency of heart's action followed by cardiac paralysis, and from time to time, a convulsive wave passed over the animal, beginning at the eyes and advancing to the surface of the abdomen and extending to the tip of the tail].

He successfully employed it in the extraction of some fragments of iron from the cornea and in slitting up the lachrymal canal." It does not produce as complete anesthesia as that following the use of cocaine, and in one or two hours after its administration there

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was "cloudiness of the epithelial layer of the cornea, lachrymation, hyperemia of the conjunctiva and ciliary injection." These results were witnessed after the administration of a one-quarter per cent solution. Dr. Guttman succeeded in producing anesthesia with two drops of a two-tenths per cent solution, and while under its influence removed a foreign body from the cornea. It may possess genuine anesthetic powers, but the indications are also that it may prove too irritating for use upon the more sensitive mucous membrane.

The remedy is a little longer in developing than cocaine, but its effects last from 8 to 10 hours. The action of a concentrated aqueous solution on a frog's heart diminished the pulsations from 30 to 8 per minute, attended by paralysis of the extremities. The erythrophleum contains a principle having a decided local anesthetic effect. Merck's solution produced contraction of pupils with insensibility of eyes lasting from 10 to 24 hours; but the irritating principle, the erythrophlein it contains is present in too great a quantity for it to be neutralized in the concentrated solution; and this was proved by its producing in cats irritation of cornea, much salivation, running at the nose and violent sneezing."

If future experiments should establish its non-irritating properties, as well as its power as a nullifier of the function of sentient nerves, then indeed and in fact will it become valuable in consequence of the smallness of the dose necessary, the rapidity of action and the duration of its effects. But much yet remains to be done in the way of observation and experiment before its claims in local anesthesia can rival or supplant that of cocaine.

Treatment of Migraine with Antipyrin.

It is claimed by T. J. Bokenham, of St. Bartholomew's Hospital that he has treated recently twenty-six cases of migraine with satisfactory results in every case by small doses of antipyrin. In a communication to the *Practitioner* (copied in the *Med. and Surg. Reporter*) "he describes three typical cases, namely, that of a near relative, that of a girl, the members of whose family exhibited epileptic tendencies, and an attack as occurring in himself."

He says that his own migraine is usually brought about by overuse of the eyes, and is almost invariably preceded by well marked teichopsia, which lasts for from half an hour to several hours. As the attack proceeds, he gets a "tender spot on some part of the scalp, generally in the right parietal region, a vascular disturbance, with throbbing behind the right eye."

He began the use of the drug, three grains as the dose, after the pain was well developed, and found an almost immediate relief from the throbbing, pain and flushing.

After the lapse of a half hour he repeated the remedy in the same dose, and in another hour felt quite well, with the exception of slight scalp tenderness. "Since then he has tried the drug, in the same dose, taking it as soon as the teichopsia comes on, with complete success in altogether preventing the attack." "The second case is that of a woman who had been subject to migraine for many years." In this case large doses of ammonium bromide had been successfully tried at first, but subsequently failed to relieve. Afterwards antipyrin in 3 grain doses administered twice as in the above case gave relief. In the third case the family history shows the prevalence of epilepsy. The mother was epileptic, the father is of an excitable temperament, and with one member of the family showing signs of weak intellect." In this case migraine usually followed any undue fatigue, accompanied by prostration. The author says that he used antipyrin during the attack; the headache yielded after the second dose of four grains. In connection with this emphatic and satisfactory experience of Bokenham, we quote the statement made by Dr. W. A. Sturges in the *Brit. Med. Jour.*, of Feb. 4:

"A member of my family liable to migraine was attacked in the ordinary way a few days ago, and I administered for the first time

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ose of five grains of antipyrin in powder, ith the following result: Five minutes after king it, the 'deadly sickness' which was reviously present seemed to give way, and a 'expanding sensation' was felt, rising from e stomach upward. Almost immediately e sneezed violently for about twenty times nning without pause. The face and eyes came deeply suffused; tears began to flow; antities of mucus flowed from the nose; the eathing became hard and labored, accompaed by a feeling of suffocation; there was mplete inability to lie down. A violent ugh slowly came on, and large quantities of ucus were expectorated: at the same time ere was very profuse sweating. After ese phenomena had lasted for about half an ur, intense itching was felt on the insides both thighs, and on examination there was und a thick outcrop of urticaria, which soon tended on the abdomen. There was also a rong coppery taste in the mouth—not conuing, but coming on in violent bouts—and equally strong smell of the same metallic ture, also intermittent. There was loud ging in the ears, which felt intensely consted. The pulse was quick and very full. ter the symptoms has lasted about three arters of an hour from the commencement, ey gradually disappeared, some tightness of e chest and running at the nose remaining r four or five hours longer. The sickness ompanying the migraine disappeared comtely as soon as the drug had begun to rk; the headache also disappeared for a ne, but came back slightly about four hours terward."

And following this we append the report of ase made by S. Peters M. D., appearing in e *Med. Reg.*, of March 24.

For a severe headache, of a nervous charter, in a lady—Mrs. H.—of about twenty-e years of age, and otherwise healthy, I scribed two powders (ten grains each) of tipyrin, one to be taken an hour after the st, if needed. She took one about 9.30 P.M. d in two or three minutes she began to exrience a "snapping,, in her head, along th an itching and burning in the mouth and throat, particularly in the roof of the mouth. This feeling also extended to the eyes, nose and ears, and became so violent that she involuntarily thrust her fingers into her mouth and ears for relief. The "snapping" in the head increased in intensity till she became almost frantic, and ran up and down the room screaming, partially losing control of herself, and apprehending acute insanity. Sneezing soon commenced, and became extremely violent, the act being repeated at least fifty times, while the nose and eyes were running a very copious, watery fluid. The turgescence of the mucous membrane was so extreme, that she could not breathe through the nostrils for several hours —indeed,not until the next day. Following all this, there was a stupid; tormenting feeling, with swelling of the nose and eyes, till, exhausted, she finally fell asleep. This sleep was disturbed and tiresome, but the headache proper was relieved. The most violent part of the process continued for only about ten minutes, but recovery was not perfect till the next day.

ORIGINAL ARTICLES.

THIRTY-FIRST ANNUAL MEETING OF THE MISSOURI STATE MEDICAL ASSOCIATION. ADDRESS OF THE PRESIDENT.

BY DR. FRANK J. LUTZ, M. D., OF ST. LOUIS.

Mr. Vice President and Gentlemen:

I am not insensible to the high honor, which the election of one of your members to the Presidency of this great association confers. Undeserved as the distinction may be and however unworthy its recipient, it is all the more valued.

And the place of our convention is of special significance to me. I can not but stop to look back upon the eleven years which have elapsed since this association met in Kansas City. I then became a member. It is a curious and to me a gratifying coincidence, that when we meet again in the city on the Kaw, I should have been called upon

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to preside over your deliberations. But for the remoteness of the Temple I might have pilgrimed to the Delphian grove and I flatter myself the the interrogated oracle would have responded: It augurs well.

A comparison between that meeting and this brings forth in bold relief not only our numerical gain, of which we are justly proud, but also the increased and ever increasing usefulness of this association.

Nor can we fail to observe in looking back over the period mentioned the steady progress which we have made in the perfection of our organization, the increased scientific value of its meetings, and the great influence which we have exercised in shaping public affairs.

I will not be accused of self laudation or unbecoming vanity when I say that this convention of the physicians of Missouri, stands unrivaled and unequaled in the annals of medicine in this state. Besides to a revival of interest in the affairs of our profession and a better appreciation of the fact that by cooperative work we can best succeed in our high mission, the success of this meeting is in no small degree due to the great activity of the Committees on Arrangements and Scientific Communications, who have spared no pains to urge on repeated occasions upon the regular profession the benefits derived from membership, and the duty of each individual to add to the common stock of knowledge his proportionate share. I take pleasure in thus publicly expressing the high value we set upon their work. May their example be followed!

Upon proper reflection as to the manner in which I would endeavor to conform to the time honored custom and discharge the duty imposed upon your presiding officer by your Constitution, which requires of him to deliver an address upon retiring from the Presidency it occurred to me that with the large number of papers upon scientific subjects, an effort on my part to discourse upon a subject having a purely medical bearing would be less acceptable than upon another occasion. I ask your indulgence for a short time to lay before you a few fragmentary thoughts concerning the practical workings of this association and to make a few suggestions as to the means by which the objects of our organization so far as they relate to the public can best be carried out.

The regular attendant upon the annual meetings will remember with some degree of satisfaction and pride, I fancy, the different steps taken to make this association "a representative body of the regular medical profession of the state of Missouri." Representative not only in that its individual members are physicians, who are looked upon as successful practitioners in their respective homes, but also in this more important and gratifying fact that they are sent to the annual convention accredited with the highest testimonial—a certificate of good standing in the regularly organized societies in the localities in which they reside. Thus this convention whilst not as yet a strictly delegate body, is nevertheless "representative of the regular profession of the state of Missouri.,' And in another direction a mighty impetus has been given to local organizations, town, county and district; for the prime requisite of membership in the state organization is membership in our home societies. A firm bond of union is in this manner established between all regular societies and the great state organization and the strength and power of both is increased. As our numbers increase from year to year a division of members may become necessary, reserving to regularly appointed or elected delegates the duties of legislation for the profession of this state and limiting permanent members to the privileges of scientific contribution and discussion.

Nor has this compact organization failed to bear good fruit, when efforts were made in the recent past to advance "the interest of the profession throughout this state" by the passage on the part of our legislature of an enlightened and humane act for the promotion of medical science by the distribution and use of unclaimed human bodies for scientific purposes. The "unity and harmonious action of the entire profession" which the founders of our association no doubt spoke

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of as "a consummation devoutly to be wished,' seems to have been most satisfactorily accomplished. No better illustration could be adduced of the influence which this organization can exercise, if its efforts are systematically directed.

Whilst the State Medical Association can not be held responsible for the efforts which have been made "to suppress empiricism as much as practicable" and "to restrict the prilege of practicing the profession of medicine to qualified graduates" by legislative enactments, yet as an organization we have encouraged the passage of those laws and flattered ourselves, that by having them placed upon the statute books we were taking a step in the direction to accomplish one of the objects of our organization. In many respects we may have been disappointed. Yet the foundation has been laid upon which to erect a proper superstructure and the experience gained ought to be a safe guide for the future.

The contributions to medical literature made at our meetings and preserved in the printed volumes of transactions attest more eloquently than words what this association has done "to develop talent, and to stimulate medical inventions and discoveries."

You will agree with me that "our rights and immunities as medical men" have not been curtailed.

Permanent Secretary.

The experience of other large associations teaches that a frequent change of officers, especially those to whom is entrusted much of the executive work, is not calculated to increase the efficiency of those officials. Constant rotation in office has permitted no one who held the office of secretary, proverbially the most laborious, to thoroughly familiarize himself with his duties, and then give to the association the benefit of his experience and knowledge. A new set of officers is chosen, they attempt to further the interests of the society, but being usually deprived of official associates whose experience and knowledge of the established practice would make them proper guides, they each begin *de novo* and after the expenditure of much time and labor leave off just where their predecessors did. Now whilst I do not deny, that it is a laudable ambition to aspire to the honors within the gift of the profession, yet I know that many of them when acquired are not mere empty honors. One such place, and to me it seems the most important in the association when its duties are rightly understood and performed, is the secretaryship. I would suggest that you enact such alterations of and additions to your constitution and by-laws as will make the office of secretary either permanent, that is for so long a time as an incumbent is willing to perform its many duties, or else, if that be more to your liking, elect a secretary for a period of say five years. In either instance the association will be benefited. A most striking illustration of the benefits accruing to an organization by having at least one permanent officer is furnished by our parent organization the American Medical Association.

Duties of Committees.

It is to be regretted that for many years, appointments to the chairmanships of the various committees have been considered empty honors, implying no duties and exacting no obligations. The object in establishing committees to report on scientific progress, was no doubt, to furnish proper subjects for discussion, by bringing before the meeting recently suggested theories and ideas or to recall and re-establish by the recital of personal experience well established truths. By following in the future, a well established custom, the entire field of medicine as embraced in the subdivision of the committees on the progress of medicine and surgery provided for in sections four and five of article five of the by-laws. In order that the greatest good may come to the association through the work of its scientific committees, it has suggested itself to me, that by accepting the chairmanship of a committee, the recipient of that honor, should be obligated by the proper addition to your by-laws, to furnish either an epitome of the progress in a particular department or at least to write a paper germane to the subject of his committee. This would

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insure not only highly interesting and valuable contributions by individuals, but might also be made the means whereby a number of members constituting a committee would elaborate some subject or other collectively.

COMMITTEE ON NECROLOGY.

Permit me also to call your attention to a much neglected section of your by-laws. I refer to section eight of article one of the by-laws which reads:

"If a member of this association die, it shall be the duty of the presiding officer of the nearest medical society in the district in which he resided, to write or have written a suitable biographical sketch of said deceased member, and to transmit the same, before the next annual meeting, to the committee on publication."

How derelict we have been in the performance of this sacred duty to our deceased brethren, the absence of any mention of even their names in our transactions accuses us most eloquently. It is true, that when some conspicuous figure is removed from the stage, admiring friends chronicle his many good qualities and noble deeds and a copy of the stereotyped resolutions may find its way into our records, but when the more humble though perhaps not less worthy physician, answers his last call, so far as the great profession of which he was a true, honest member is concerned, he is forgotten and no mention is made of it, that he too endeavored to typify by his life's work the beautiful aphorisms of Nikolas Van Tulpe, "*aliis in serviendo consumor.*" It would contribute much toward elevating this association in the estimation of the true physicians of this state, and it would be conducive toward uniting in a more firm bond those upon whom is enjoined the performance of so many important and arduous duties, were a roll of honor established, upon which shall be inscribed the name of every faithful departed brother.

In order to carry out this idea section eight, of article one should be so altered as to add to the standing committees one on necrology, to be composed of one member from every congressional district of the state; such members to hold their offices for a term of years, and whose duty it shall be to report in writing at each meeting to the presiding officer the names and biographical sketches of such deceased physicians in their districts as were in affiliation with this association through membership in their local and district societies. And it should be made the duty of the committee of publications to print such reports in the transactions.

The sad duty devolves upon me, to chronicle for the past year the deaths of two physicians who in their day were considered worthy of the highest honor in the gift of the profession of this state.

Walter Browning Morris, M. D., who was president of this association in 1868, was born February 18, 1809, in Culpeper county, Virginia, and died in St. Louis, November 29, 1887. He attended a grammar school at Castle Mountain, Madison county, Virginia, and there qualified himself as a teacher. In 1840 he emigrated to Ohio and graduated at the Cincinnati Law College March 2, 1843. March 7, 1844, he graduated at Transylvania University, Lexington, Kentucky. He was elected to the Ohio State Legislature for two terms; was a delegate to the National Democratic convention which met at Baltimore when J. K. Polk was nominated for the presidency. He came to St. Louis November 2, 1845. In 1852 he was elected to the Missouri State Senate and was returned for twelve consecutive years.

He was a man of comprehensive intellect of classical education and extensive reading. It was his ambition to shape public policy, maintain an elevated standing in his profession and to faithfully discharge the duties of citizenship. In public life he was more than a politician and while he impressed his thoughts upon the legislation of Ohio and Missouri, he commanded the esteem and admiration of his fellow officials many of whom till this day remember with profound respect his statesmanlike ability.

In the field of medicine our deceased brother was no laggard, but with avidity possessed himself of the advanced researches

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others and with characteristic industry and ergy, applied the knowledge thus obtained an extensive practice. Though grown old years, he was unflagging in the discharge active professional duties and regularly perrmed an amount of labor impossible to est junior country practitioners. As a citin he was above reproach, the friend and adser of the community.

The leading characteristic of Dr. Morris s broad and unfaltering philanthropy. This exhibited both in public and private life to rich benefit of the state and the welfare d happiness of the people. Devoid of selfness he lived but for others, and it is indistable that he devoted his life, labor and atinments toward alleviating the sickness, rrows and misfortunes of others. Regardss of remuneration, his professional attenons were bestowed most persistently night day, upon the poor and unfortunate who ver appealed to him in vain.

In his death the state has lost an efficient rvant; the profession an earnest and intelgent member and the community where he ed a devoted friend.

Of Dr. T. B. Lester, who was the Presiat of this association in 1870, I dare rcely speak in this, his home, from whose rtals the emblems of mourning have been rcely removed. Next to the City of Kans, this association is the chief public rner. We have lost in him one of our st enthusiastic supporters and one of our st valued members.

Dr. Lester was borne June 24, 1824, at arlotte county, Virginia, of Bryan W., and zabeth Friend Lester. His family emiated to Salem, Illinois, in 1835. Both pants died in 1873 leaving him an orphan at years. He received a common school eduion, afterwards attended the college at ount Vernon, Illinois, and commenced studyg medicine with Dr. M. W. Hull, of Salem, inois. He attended his first course of lecres at the University of Missouri, in St. uis in 1845–6. He entered the U. S. volteers as acting assistant surgeon and served ith the First Illinois Volunteers during the Mexican war. On his return he finished his second course at the University of Missouri, and graduated in March, 1850. His professional career was begun at Salem, Illinois, where he practiced successfully until 1854 when he came to Kansas City. Here he remained in active practice until his death, February 24, 1888. He died of acute croupous pneumonia several days after the initial chill. Dr. Lester was not only an active successful practitioner, but also ranked high as a medical teacher, being one of the organizers of the College of Physicians and Surgeons, now the Kansas City Medical College, in which he filled the chair of principles and practice of medicine from 1870 until his death. He took an active interest in the medical societies of his city, county, district and state, in each of which he was elected the presiding officer. He was also a regular attendant at the meetings of the American Medical Association, and was one of its Vice Presidents in 1884. He left to his family the richest legacy—the record of a well spent life.

State Board of Health, and Practice of Medicine.

When some years ago the profession of this state, after many fruitless efforts, succeeded in convincing the General Assembly of the necessity for enacting laws establishing a State Board of Health and regulating the practice of medicine, those having the welfare of our profession and the best interests of our citizens at heart imagined that we were keeping abreast of the advances made by many of our sister states and that a new era was about to dawn upon us. Unfortunately our fondest hopes were not realized. This is not the occasion nor will I arrogate unto myself the privilege of analyzing the causes which have led to this partial failure, but I may be permitted to suggest that perhaps the efforts of the Board of Health, which is now practically impotent so far as active operations are concerned for the want of an appropriation, are not encouraged and do not yield the desired results, because in the minds of many of our most patriotic physicians the Health Board should concern itself primarily

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with matters appertaining to the public health. The question of regulating the practice of medicine is now, both in this state and in others, the obstacle in the way to securing the objects for which the Boards of Health are created. It is useless to dwell upon the means by which the state should "restrict the privilege of practicing the profession of medicine to qualified graduates." At one time it was thought that the possession of a diploma gave assurance of some qualifications; soon the ease and rapidity with which the most densely ignorant could become possessed of the parchment made us pause, until now I venture to say the most experienced are anxious to follow the laws and customs of the older countries, in which the acquisition of a degree does not include the right and privilege to practice medicine.

Much of the dissatisfaction could be removed, the public health could be better protected and those vested with the state's authority to carry out the laws concerning the public health would be more certain of the intelligent co-operation of the physicians of this state if some other tribunal were to pass judgment upon the qualifications of those wishing to practice the art of healing in this commonwealth.

A board of examiners by whom all, who by proper study, as evidenced by their credentials of learning, claim to have possessed themselves of the necessary qualifications should pass satisfactory examination in the so-called fundamental branches of medicine, would I believe solve the the problem of the practice act.

On the other hand I would urge most strenuously that the honor of this state, which ought to be one of the foremost in the galaxy of commonwealths composing this great and enlightened Union when matters appertaining to the best interests of mankind are concerned, demands that the health of her citizens be not jeopardized for a few pieces of silver. You know and I know, that if the physicians of this state ask it, the public health will not suffer for the want of a sufficient appropriation, and I appeal to every true physician in this state to lend his assistance and influence in order that at the next session of the General Assembly a sufficiently large portion of the public money be set aside for the purpose of the Board of Health.

National Quarantine.

I would also ask your active co-operation in an organized effort to obtain such national legislation as will efficiently protect the public health not only from the importation of infections and contagious diseases during the time that they are epidemic in countries with which we are in communication, but also from the incessant conveyance into the interior of contagious diseases by immigrants. You are well aware that an effort is being made to establish a national quarantine and I would urge upon you to pass suitable resolutions endorsing legislation having it in view and to forward them to the representatives of this state in the National Council.

Commissio de Lunatico Inquirendo.

One other matter which concerns the medical profession in its relations to the public I wish to bring to your attention. It is the manner in which the law now deals with those committing criminal acts and for whom it is pleaded that they should not be held responsible because of their mental condition. The time has arrived when the law should be made to conform to the well established and well founded knowledge of medicine, in order that justice might be properly administered. When mental defect or alienation is set up as a plea the question becomes primarily one of medicine, and physicians only are competent judges. The law should not permit any one else to pass upon a question concerning which none but physicians can have adequate knowledge. I am sure the legal profession of this state would endorse changes in our laws whereby a commission would be established whose duty it would be to determine the mental status of any one accused of a criminal act in whose defense mental aberration was set up.

In conclusion, Gentlemen, I congratulate you upon the success of this meeting and upon the bright future of this association.

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In returning to your homes and to your duties, I hope you will carry with you pleasant reminiscences of this reunion and that by the intercourse and contact with so many of your fellow physicians you will have gained new strength for the successful accomplishment of your God given mission.

THE MEDICAL JOURNAL.

BY I. N. LOVE, M. D.

Response to the sixth regular toast at the banquet given to the Missouri State Medical Association by the profession of Kansas City at the thirty-first annual meeting.

MR. TOAST-MASTER, LADIES, AND GENTLEMEN.—

We know that the general press, with its wonderful enterprise, has been the great civilizer, educator, and stimulator of effort to the world at large. History tells us that its earliest representatives bore almost invariably the title of Mercury, so much so as to suggest the idea that the ancient deity of that name had been elected as its patron saint. A most proper selection! The grandson of Atlas, upon whose shoulders and hands rested heaven! What more appropriate than that he, bearing in his hand the scepter of power, and upon his feet winged sandals, expressive of fleetness, flight and fancy, should be empowered to bear upon his brawny shoulders the weight of the world's affairs, carrying it ever onward and upward into regions of brightness, aiding in the accomplishment of its perfect development and final deliverance into the realm resting upon the shoulders of his grandfather, Atlas. We grant that in his youthful days he indulged in some frivolities, such as foraging among the steers of the neighboring divinities. To this day he will, now and again, when opportunity offers, bind the modern Ixions to the wheel of public scorn for indulging in improper relations with latter day Junos, and by so doing accomplish a restraining influence upon such pecadilloes; and he may, ever and anon, with satisfaction to himself, if not to others, manipulate his "*lyre*;" and not infrequently he may gratify the vanity of the later-born Juno's Venuses and Minervas, by escorting them to the vulgar public of Mount Ida, and submitting their charms, figuratively speaking, to the judgment of Paris.

In spite of these little weaknesses, apparent to all and a matter of record, the fact remains that this full-grown, robust representative of ancient mythology, Mercury the modern Press, especially as represented in America, has thoroughly and honestly won his spurs as being the bright, cheerful, ever alert bearer and supporter of the world and its progress, and to him by right of having earned it should the *palm* be yielded, let the tortoise go where it may.

The Medical Journal as representing one special division of the world of journalism is entitled to its share of honor.

From the weak and puling infant sent tottoring out upon the world in 1686, it has grown to be a mighty giant, and its every effort from the beginning has been in the direction of the up building, the bettering, the strengthening, and the solidifying of the medical profession.

Its influence reaches every part of the world to-day, and as its infantile state had its origin in the same century which produced a William Harvey, Sydenham and so many other great investigators and discoverors, and its growth has been synchronous with the material advancement of the profession, may we not justly claim that it should be allotted a place very high upon the roll of honor.

During these years there was a beginning made to real tangible progress in science, and, I take it, that no one will question the statement that in the present century practical medicine has made greater advances than in any other similar period.

Among the causes which have tended to the accomplishment of this result may be mentioned the brilliant discoveries which have rendered chemistry a new science, by aid of which we are now able to comprehend much more closely than before the processes of nutrition, respiration, calorification, secre-

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tion and excretion; the increased attention paid to microscopy, by which the mode of development of the germ, the minute anatomy and the growth and development of the different tissues, the process of repair and that of inflammation, and other pathological processes, have been investigated; the rapid progress of experimental physiology, aided by chemistry and microscopy; the increased cultivation of comparative anatomy and physiology; the cultivation of morbid anatomy not only in relation to the symptoms of disease during life, but to the various degrees of morbid developments, and to the relation which those developments bear to each other; the new and more perfect methods of investigating disease, by which its diagnosis has become more certain; and last, but by no means least the growth, development and general distribution of the medical journal.

Through the agency of this powerful medium have the intellectual efforts and the crystallized accomplishments of a few workers become the property of the many in the profession and the individual seeds of thought and deed have stimulated and enthused the masses. Let once the spirit and the result of investigation in a given direction be made manifest to a toiler, and he must need, be a sluggard indeed, if he be not at once infected and endowed with ambition and an infatuation of the same character.

The medical journal enters to-day the office of every man worthy of the name of doctor, whether he be jostling among his fellows in the crowded city, or away off from the busy haunts of men. At the lonely cross-roads station, carrying a record of the delvers in the deeps of science, a message of good cheer in the form of an announcement that another means of removing the terrors from the bed of the sick and suffering has been discovered; that a new plan for preserving and prolonging life and preventing pestilence has been devised; that hitherto unpenetrated territories and cavities of the body over which had been written, "thus far and no farther shalt thou go," can now be successfully invaded, and death, which before had been inevitable under existing conditions, can be routed through the medium of the keen and trusty scalpel, aided and abetted by aseptic and antiseptic arrangements.

The medical journal asks that they who receive this light that others shed shall practice the precept which is one of the "Articles of Faith" in our most generous profession, that which thou knowest thou shouldst give to others as thou would have others give unto thee; that which thou hast in the way of light and knowledge thou shouldst communicate freely to thy profession for humanity's sake and for the reason that though thy days should be as Methuselah's and thy energy constant and thy wisdom as Solomon's and thy strength as Samson's thou couldst never hope to give back to thy brethern any infinitessimal part of that which thou has received from them.

The medical journal of America should be a source of pride to our profession: it should receive a continuance of the endorsement and encouragement which has sustained it and been instrumental in helping it to its present advanced position, so that it may continue to be the disseminator of the current thought of the sixty-thousand earnest workers surrounding it, carrying to them glad tidings of great joy, an inspiration in their weary rounds of work.

I am so full of this subject, that I would fain continue, but I recall the observation of Voltaire to the effect that the secret of making one's-self tiresome is not to know when to stop. I thank you for your kind attention.

Sanitary Convention.

A state sanitary convention will be held under the auspices of the Pennsylvania State Board of Health at Lewisburg, Penn., May 17 and 18, 1888.

A number of papers are to be read on the prevention of contagious diseases.

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WEEKLY MEDICAL REVIEW,

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SATURDAY, APRIL 28, 1888.

EDITORIAL ECHOES OF THE STATE MEDICAL ASSOCIATION OF MISSOURI.—31ST ANNUAL MEETING.

BY DR. I. N. LOVE.

The Missouri State Medical Association never held as large a meeting as the one just closed at Kansas City, nor one more interesting, instructive and generally gratifying. President F. J. Lutz has great reason for feeling proud of the result, for his untiring and earnest work was an important factor in its accomplishment.

On all sides it was freely admitted that the large attendance, the enormous number of papers (too many in fact to admit of all being read) was to a considerable degree dependent upon the personal energy, properly directed, of President Lutz, although this was supplemented by the superb labor of the two splendid committees—the committee of arrangements and that of scientific investigation, presided over respectively by Dr. E. R. Lewis and E. W. Schauffler, of Kansas City.

The number registered was 269, and one fact worthy of note was that at least 80 per cent of that number were under forty years of age, thus giving evidence that a new era has dawned upon the medical profession as well as upon every other interest in the state of Missouri. The young men are certainly coming to the front, and this is well, for the one great need of our state is action. The older heads will continue to serve as counsellors.

I was thoroughly impressed with one thing, and that was the complete unanimity with which the medical men with whom I conversed expressed their conviction that the coming man in Missouri for governor is David R. Francis, mayor of St. Louis. Doctors are observing and grateful men, and when they see one in authority disposed to cater to their judgment and wishes in matters involving the health and well being of the community, the novelty of the event and their loyalty to their profession and its best good will not permit them to forget it. I am strong in the belief that by responding favorably to the desires of the medical profession in St. Louis in his appointment of a medical health commissioner, Mayor Francis builded wiser than he knew, for I am sure that he has by that act, coupled with his honest, energetic, strong and manly administration of St. Louis affairs, attached unto himself a solid body of thoughtful, cultivated, influential men, who will make themselves felt in his favor before the gubernatorial convention in August.

By the way, the more a man mingles with doctors the more is he impressed with the fact that, as a class, they are clear-headed, warm and big-hearted, appreciative of sentiment and humor, and withal, almost without exception, completely lovable men.

Particularly is this true of the "convention-al" and medical society doctors.

Whether the mingling and fellowship be instrumental in developing these admirable traits, or their possession be provocative of this disposition to come together (on the principle "that birds of a feather flock together"), it is difficult to say, but I am inclined to believe that each may very properly be considered both the cause and the effect.

The doctor who selfishly and unwisely sits in his office or "knocks around town," lazily, and never attends at home or abroad the con-

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vocations of his brethren, thus putting himself in a position for receiving and imparting information, exchanging views and experiences, rubbing off rough corners and brushing out the mental cobwebs from the darker areas of his mind, made dark by the absence of the light reflected from other's works against the best interests of himself and his patients, in that he is likely to be come rusty and slow as a thinker, a laggard, a sluggard, a narrow, one-idead, dogmatic, snarling, misanthropic, dyspeptic crank.

Go where you will in any community and you will find the men who are the busiest, the most thoughtful, the best students, the happiest, the leaders in the front rank, are the ones who are never too busy to attend their home societies regularly, and get away to a distant meeting at least once or twice a year.

Take Griffith, Lewis,Shauffler, Fulton,Jackson, Duncan, Berger, Snell, Porter of Kansas City, Geiger, of St. Joseph; Teft and Camp, of Springfield; Williams,of Versailles; King and Trader,of Sedalia; Brooks and Matthews, of Carthage, and one is perfectly safe in pronouncing them the first men in their respective communities, without going back or beyond the record they have made as medical society men.

A number of the friends of Dr. J. D. Griffith, of Kansas City, had hoped to see him elected President at this meeting, but he would not permit them to entertain the proposition and thus was largely responsible for the unanimous election of Dr. A. M. McAlester of Columbia, who has been a faithful constant member for many years, and will make an excellent officer.

The papers were uniformly good, practical and interesting (one great misfortune was that they were so numerous as to almost preclude discussion.)

The old-timers (so to speak) of the association who have been an important part of the state profession for years, (the wheel horses as it were) such as Moses, Wm. Glasgow, Hardaway, Wm. Porter, Prewitt and Mudd, of St. Louis, King of Sedalia, Allen of Liberty, Fitzgerald of Lathrop, Wright of Fayette, and many others, were there in full force.

Many private social kindnesses were distributed by Drs. Griffith, Lewis, Berger, Adams, St. Clair, Street, D. R. Porter, and the committee of arrangements, and the citizens in general were lavish in their hospitalities.

The local press were unusually courteous and enterprising, and as in every city the gentlemen of the press were cordial appreciators of good jokes, and contained all the elements necessary to good fellowship.

Speaking of journalistic enterprise, the awkwardly directed though well meant expression of it, there nearly always at these various conventions appears in these latter days when the application of art is so general a free mingling of wood cuts of officers and active workers. Our state meeting was not an exception, and this journalistic alertness and dash not only appear at the place where the convention was held, but manifested itself in one of our local journals, the *Republican* which has for years shown an interest in medical matters (notably during the preliminary arranging and progress of our Ninth International Congress) and a desire to cater to the taste of the Medical Profession of Missouri numbering well on to six thousand reading men.

Some of these wood cuts and references in the reports may not be agreeable to sensitive modest men at any time, but being not unkindly meant, even though one's vanity be shocked almost beyond recovery by being made to assume the appearance of the "missing link" or presented to the gaze of the community as a bold,bad buccaneer with evil in his heart and the devil in his eye (as was our esteemed friend Dr. Bond), the spirit which actuated them is the only culming and compensating feature of the occasion.

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I am sure Dr. Bond was not rendered
oroughly bad by his visit to Kanuas City,
d although he may have been somewhat de-
oralized by long continued enjoyment and
e feast of reason which regaled him, I can-
ot believe that he was so turned around as
ot to know on which side he parted hair,
nd I am sure the nausea and disgust depicted
pon his countenance in the engraving more
orrectly presents him as he was after the ap-
earance of the illustrated journal rather
han before.*

So far as the "blooming silly" expression
pon the face of the writer, his companion
a misery is concerned, I can only say that
is most ardent hater could have asked
othing better for his purpose.

I have private information that Dr. Bond
as had sedatives and tranquillizers applied to
his case for the past twenty-four hours, and the
hope of bringing back a return circulation,
restfulness of mind and absence of irritable
stomach has not been abandoned.

The gentle suggestion that the merry ar-
ist fiend of the *Republican* be annihilated
as been overruled.

Kansas City has more up and down busi-
ess and bustle to the square foot of territory
han any other place in my knowledge, I
ink the cheif characteristics of the city are
im, emergy push and pull.

The very atmosphere is full of brag. The
hief commodity is real estate, and every
ody is a dealer.

Some cities are set up on a hill and some
re dumped down in a valley, but Kansas
ity is both, and I think in this topographical
act we have an explanation of the wonderful
orce vigor and go of the town. In the be-
inning the efforts at climbing the many hills
xhausted the weak and lazy; they were
riven to the wall or took to the woods and
hose who survived were the fittest and de-
eloped a strong and stalwart manhood
hich could but bring prosperity to any com-
mity.

EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

The Hospital of the sisters of St. Joseph, at Alton, Ill., just finished, is a beautiful building erected upon the most advanced ideas of architecture and sanitation, and topographically speaking it surpasses anything, it has ever been my lot to see, being situated upon one of the most prominent bluffs at Alton over looking the country in every direction for from twenty to thirty miles.

The view from every window is a panorama of beauty and loveliness, and one might almost wish to be sick there in order to enjoy the view from the various outlooks.

Dr. W. A. Haskell, President of the Illinois Board of Health, is surgeon in charge, and patients of the hospital have a right to expect as good care as can be received anywhere, and with such surroundings Dr. Haskell might hope to make a record like Lawson Tait, that is one hundred per cent. of recoveries.

* * *

The press and people are full of the grand Conkling dead, the heroic, noble and royal Emperor of Germany dying, but an almost completely buried, brief telegram (a single line) announces that the eminent scientist, surgeon aurist, Dr. C. R. Agnew, of New York, has joined the silent majority of the great beyond; but if the service of mankind, the alleviation of pain and sorrow be the important work we think it is, Agnew's title of nobility will not be questioned in the great hereafter, and nobles and officers of state and thousands of God's poor will unite in paying tribute to his genius, and rise up and call him blessed.

* * *

Many touching incidents are developing during the Emperor Frederick's days of trial and fight against death, which appeal to the heart and arouse the wish universal, that he come out victorious, for he deserves to win, giving daily evidence as he does of hero-

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ism truly royal. Suffering disease and pain are indeed the test of greatness.

What more pathetic than the following:

TOUCHING INCIDENT.

The Emperor recently summoned his old deaf servant, Becker, who is now a pensioner, and, after shaking hands with him, wrote upon a slip of paper:

"We are both unfortunate. You cannot hear and I cannot speak. But I am much more unfortunate than you."

The old servant was deeply moved and reverently kissed the Emperor's hands.

This recalls and emphasizes that sentiment which was so dear to and often expressed by the lofty, tender and colassal Lincoln.

"Oh, why should the spirit of mortal be proud?"

How true it is that our days swiftly roll by and the line which divides us will be wiped away and six feet of soil will cover us all.

* * *

Dr. W. A. Haskill, of Alton, Ill., strongly endorses the early and thorough treatment of diptheria with the bichloride constitutionally and locally.

When asked if his experience had been more satisfactory since adopting the antiseptic plan of treatment, he replied before adopting this plan, I had no success at all.

LAPAROTOMY.

Now and then a case of laparotomy is reported in which a fatal result is due to complications that might have been averted, had the operation been performed at an earlier period of the disease. These cases suggest to us the importance of making a thorough examination of every patient to whom we are called, that is sufficiently thorough to discover, if possible, the cause of even the minor symptoms which the patient presents. The disposition on the part of patients to attribute many ills to "growing pains," change of life "simple colic" and the like should be discouraged by the physician.

Dr. T. M. Drysdale reported a case on Aprii 5, to the Obstetrical Society, of Philadelphia, of multilocular papillomatons tumor of the broad ligament, in which one kidney had been converted into a cyst and the other diseased. The patient was a widow, 54 years of age, and had never had any sickness till about a year ago, when she was seized with intense pain in the abdomen, together with obstinate constipation. She was finally relieved by copious purgative injections. From this time on, she was troubled with colic and constipation and her abdomen remained permanently swollen. Last August she first discovered a hard tumor low down in the side of the abdomen, and her body became emaciated, while her abdomen rapidly increased in size. Micturition was frequent, but an examination from time to time showed the urine to be normal.

Laparotomy was performed in January last. The tumor proved to be a difficult one to remove, being multilocular, and having extensive adhesions to the surrounding structures.

The patient though skillfuly treated succumbed to uremic poisoning on the second day following the operation.

The autopsy revealed the fact that only a small portion of the upper part of the right kidney remained unchanged, the greater portion having been converted into a large cyst. The left kidney was enlarged and intensely congested, having a number of small cysts in its cortical substance.

This case is especially interesting in that it shows how a disease may be so masked by concurrent troubles that its presence for a time may not be suspected, and again in the fact that the urine remained normal while such extensive changes were going on in the kidneys.

DR. CORNELIUS R. AGNEW.

Another great man has been called from our ranks. Dr. C. R. Agnew died at his residence in New York City, April 18, 1888, from perityphlitic abscess. Dr. H. B. Sands opened the abscess cavity and for two days the patient showed marked improvement. Then came a return of the unfavorable symptoms, and at Dr. Agnew's suggestion a con-

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sultation was held with a view to a second operation, but before the time came for it the patient again began to improve and he had a good day till Monday afternoon when a change for the worse took place and a general though gradual sinking, which resulted from the wasting away due to the disease and the lack of proper nutrition.

In his fifty-eighth year Dr. Agnew was as active as most men are at forty; and he had lost none of his rare skill in his delicate manipulation of instruments that justly made him famous throughout the world.

We consider it a great privilege to have known a man of whom it was truly said, no better surgeon in his line of practice was to be found on earth, and there were few who were his equal.

One remarkable feature of his character was his strict adherence to detail; whatever he had before him to accomplish, he used every precaution possible to fortify himself against failure. He never operated on an eye except every one in the room was perfectly quiet. He recognised the fact that self-control was requisite to a successful surgeon. On one occasion while he was removing a cataract, an untoward event for an instant jeopardized the safety of the eye, an ejaculation of surprise by a bystander was gently reproved (when the operation was finished) in the following language: The surgeon should school himself from the beginning of his studies to exercise perfect self-control. Let what happen that may, the welfare of the patient demands that the operator shall in no way betray his surprise.

He claimed that a surgeon should be a good general. He taught each of his assistants to be on the alert, and if possible to anticipate what the operator would need.

He showed on all occasions great consideration for the feelings and welfare of his patients. Especially was he gentle and kind in treating patients at the clinics.

It is a sad fact that when such men die they cannot bequeath to others their mature judgment which is the result of their extensive and varied experience.

Dr. Agnew lived a busy life. He was a profound student and kept accurate notes of all his cases. The records now in his office would make a book that would be of inestimable value to the profession. He was a leading worker in many charitable organizations. In 1868 he founded the Brooklyn Eye and Ear Hospital. The pride of the latter years of his life was the Manhattan Eye and Ear Hospital, which he founded in 1869.

His life was that of a thorough christian gentleman. For many years he was one of the elders in the Rev. John Hall's Church, Fifth Avenue, N. Y.

CORRESPONDENCE.

ANTIFEBRIN.

DECATUR, ILL., April 18, 1888.

EDITOR REVIEW.—I want to thank Dr. E. Houston, of Stanberry, Mo., through your journal for his communication in the WEEKLY MEDICAL REVIEW of April 7, on the use of antifebrin in inflammatory rheumatism.

A few days since I was treating a young lady who was suffering very intensely, and had been for some six days, requiring two, and sometimes three nurses almost constantly, unable to move, entirely helpless, not sleeping day or night, notwithstanding she was taking chloral, the bromides and morphia sul. She had dyspnea, pain in her heart, and an intolerable headache. I was worried over her case, was fearful I was going to lose her. Had the council of two physicians, yet nothing prescribed appeared to relieve her sufferings, or check the disease in the least. I was at a loss to know what course to pursue and upon going into my office in the afternoon of the sixth day of her disease, I found a quantity of mail matter lying on my table.

I proceeded to open the packages and among the first I found the WEEKLY REVIEW, and without any special aim, I commenced turning its leaves and the first thing that arrested my attention was Dr. Houston's article on antifebrin. I read it through and decided at once to try it in my case. I went into the

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nearest drug store, got 30 gr. divided into six powders, put them into my pocket and started to visit my patient and found her as the nurses reported, worse than she had ever been, higher fever, more acute pain and breathing with more difficulty.

I emptied one powder (5 gr.) into a spoon and filled it up with granulated sugar, and added enough water to mix, gave it to her and followed it with a glass of ice water. I then left her and in thirty minutes returned, found her fever, headache and pains all gone, (and they never returned), this was at 5 o'clock P. M. At 8 and 11 o'clock, repeated the powders, after that she took one every six hours and I gave her no other medicine from this time on except a digitallis granuled ($^1/_{20}$ gr.) two or three times a day. She has slept well every night since and is able to be out of her room and down stairs.

Within the last week I have been giving it in various diseases,but have never given more than ten grains at a dose, and nearly always in wafers or capsules.

I would be pleased to hear from Dr. Houston again on this subject, and from others as well.

Respectfully,
D. N. Moore, M.D.

Pulleys Mill, Ill., April 14, 1888.

Editor Review: I read in the Review of April 7, an article on antifebrin by Dr. Houston, of Stanberry, Mo. I have used the drug in my practice and have taken it myself. I have had a severe catarrhal trouble, with rigors followed by fever, accompanied by headache, soreness and muscular pains. While I continued to make my daily rounds, it was with great difficulty, owing to the general feeling of malaise which I experienced. I believe I would have been forced to relinquish business had I not taken antifebrin. I have taken it while feeling chilly, with cold hands and feet, and it seemed to equalize the circulation, and to remove the dull tired feeling. I have taken it when fever has been followed by headache and drowsiness to such a degree that had I been at home I would certainly have gone to bed, and in an hour I would feel cool, my skin become moist, the dull feeling pass away, and my headache be forgotten.

It seems to act very much like the bromides in reducing reflex excitability, with a greater degree of power to reduce the temperature of the body. I have taken from eight to fifteen grains at a dose, and have never had any unpleasant effects to follow. In fact, it seems to regulate the vaso motor system, to establish a normal equilibrium, and set things right that were wrong.

J. J. Fly, M. D.

THE ST. LOUIS DELEGATION TO THE STATE MED. SOCIETY.

Editor Review: There is a form of wit which, 'tis said, is of the lowest, but as I have a penchant for punning, positively painful, please pardon. I did not go to the meeting at Kansas City, but I was glad to see my-son-back—Meisenbach—at the meeting last Saturday night. I am informed that the State meeting was opened differently from former meetings, that they had music, at least they had lutes—Lutz—in the chair. The delegates were unanimous in their expressions regarding the hospitality of the profession and people of Kansas City. I judged from what they said, that the door-set—Dorsett—wide open. It was generally admitted that our worthy superintendent of the City Hospital, by his able paper on laparotomy, carried off the honors of the meeting, thus justifying the wisdom of the appointment to his position by our honorable mayor, the next governor of Missouri, and proving that he is not a dolt-on—Dalton—any occasion.

The delegates "from the interior" asked aid of the state association to secure passage of a bill by the legislature, providing a fund to pay for medical services rendered paupers of the several counties of the state. They can be assured of Lemen-aid if they get nothing stronger. Our "watch dog of the treasury" was there, and as his barks—Barck and Borck—were heard, I do not think he ought to feel Hurt.

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Those of the delegation not mentioned can e assured that it is not because I consider hem smaller fry—Fry—I gathered from the sports that the meeting was an unusually armonious one. May the unity of the profession in the Bond of peace and Love ever haracterize their deliberations.

PUNSTER.

SOCIETY PROCEEDINGS.

MISSOURI STATE MEDICAL ASSOCIATION.

The thirty-first annual meeting of the state edical society, was held at Kansas City, April 17, 18, and 19. President F. J. Lutz, as in his chair, and secretary J. C. Mulhall as in his place. The other officers were: Vice Presidents, T. C. Boulware, Butler; T. B. Jackson, Macon; J. R. Hall, Marshall; W. B. Adams, Montgomery City; J. W. Heddens, St. Joseph; recording secretary, J. H. Duncan, Kansas City; corresponding secretary, W. E. Evans, Booneville; treasurer, C. A. Thompson, Jefferson City.

Each member was required to present a certificate from some local society in the state, setting forth that he was a member in good tanding before he was allowed to register.

The association was called to order and the irst session was opened by prayer by the Rev. . O. B. Lowry. Mayor H. C. Kumpf then ave a short address of welcome as follows:

Gentlemen: On behalf of our city and its itizens I bid you a hearty welcome to the etropolis of the Missouri valley. We feel ighly gratified and honored to have such an ssembly as this convene here. The profesion you represent is higher than any other ecular profession. To alleviate human sufering and to prolong human life by your cientific knowledge is a calling you should e proud of. Being aware of this fact, I can ot do justice to this occasion, and I will end y again bidding you welcome to our midst.

Dr. B. E. Fryer extended a hearty welcome n the part of the profession of Kansas City, which was briefly responded to by President Lutz.

Reports were then made by the committees on arrangements, credentials, scientific communications, and publication.

A report from the Audrain county medical society containing charges of an ethical nature was referred to a committee. In the absense of the regular committee the president appointed Drs. Bond, of St. Louis; Hall, of Marshall, and Matthews, of Carthage, to act in their stead.

On motion the privileges of the floor and the courtesies of the convention were extended to the visitors present.

Dr. Ludwig Bremer read a paper. "Insanity from Bright's Disease;" Dr. Geo. Homan, of St. Louis, one entitled, "The Ounce of Prevention," and Dr. E. R. Lewis, for Dr. Allen, of Liberty, the latter's report from the committee on state medicine. Dr. Lanphear then discussed the paper of Dr. Bremer.

The treasurer's report was read, received and submitted to an auditing committee composed of Drs. Steele, Wilson and Fulkerson. The meeting then adjourned until afternoon.

AFTERNOON SESSION.

"The Collective Investigation of Phthisis Pulmonalis" was the first paper of the afternoon, by Dr. B. F. Hart, of Brownsville. The reader showed that of the answers received to a question sent asking whether consumption was on the increase fifteen had said no, nine yes, and four were in doubt. Statistics showed that the mortality from consumption was fearful, something over one-seventh of all the deaths occurring in this country being due to this cause. He quoted authorities to the effect that the disease was on the decrease in agricultural districts, and that Bright's disease and consumption were the penalty of city life. On the subject of contagion, he said there had been a revolution among medical men, many now believing that consumption was contagious. The advantage of outdoor exercise and proper diet was dwelt upon as a method of treatment of consumption, and he said that change of climate was often a cruelty, as it was in many cases merely moving the patient from friends to die among strangers. The benefit of alti-

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tude was referred to and the fact mentioned that malaria was never known above the fog line. The paper was referred to the committee on printing with instructions to print in full.

Dr. Y. H. Bond of St. Louis, from the special committee on ethics, reported in favor of laying on the table the charges brought by the Audrain county medical association. The report was adopted.

Drs. O. A. Wall of St. Louis, C. D. Corcoran of Kansas City and D. E. Hughes of the pharmaceutical association were granted the privilege of the floor and the right to participate in any discussion referring to pharmacy.

"The Personal Equation, a Suggestion Concerning Diagnosis by Auscultation," was the title of a paper read by Dr. Robert Barclay, of St. Louis.

Dr. L. J. Matthews, of Carthage, read a paper on "Intestinal Perforation and Hemorrhage as Complications in Typhoid Fever." He said that many cases without the symptoms characteristic of typhoid fever on post-mortem examination showed the lesions of this disease. He therefore advised that these cases, which seemed slight but could not be diagnosed, should be carefully treated and not left to their ordinary course under the supposition that they were merely intermittent or bilious fevers.

Dr. H. C. Dalton, of St. Louis read a paper illustrating "A Case of Gunshot Wound of the Stomach and Liver; Laparotomy, Recovery. The paper detailed the case of a colored man of 22, who was shot in the abdomen by a 32 calibre ball. His recovery was assisted by laparotomy and the youth and color of the patient, the physician saying that experience showed that colored people more easily recovered than white from all injuries. The paper was ordered printed with illustrations.

"The Untoward Effects of Drugs, with Their Painful Surprises," was the title of a paper read by Dr. R. F, Brooks of Carthage. The paper related experiences with turpentine, morphine, atropine and chloroform, which acted contrary to usual effects, owing to the peculiar susceptibility of the patient, and care was advised in the administration of these drugs.

Dr. J. C. Mulhall, of St. Louis, read a paper upon "Heart Tonics," giving his personal experience with the use of various drugs and their action upon the heart.

Dr. O. A. Williams, of Versailles, was then on motion, permitted to exhibit several curious fetal specimens.

Brief discussions on the several papers were indulged in by various members, the question of typhoid fever and its treatment, and the operation of laparotomy in abdominal gun shot wounds receiving the most consideration.

Adjournment was then taken until 8 o'clock.

EVENING SESSION.

Almost every chair in the hall was occupied when President F. J. Lutz called the meeting to order and read his annual address, which was warmly received. See page 455 of this issue of the REVIEW.

Immediately after the president's address, Dr. Geo. Homan, of St. Louis, made a report as to what the State Board of Health had done and what it had not done.

Dr. Homan's address was of much interest, as it contained reasons for the existence of the state board and why it should receive more active support.

The committee on credentials reported the following list of physicians entitled to seats in the convention:

Z. T. Stanley, Laclede; J. T. Burke, Laclede; Nicholas Guhman, St. Louis; W. F. Gart, Knoxville; E. K. Lewis, Kansas City; J. O. Wilkerson, Titusville; W. M. Lenox, Lake Spring; B. F. Wilson, Salisbury; L. J. Matthews, Carthage; Woodson Moss, Columbia; J. B. Winn, Macon; A. Rhodes, Carthage; R. D. Haire, Schell City; U. S. Wright, Fayette; W. W. Dougherty, Liberty; H. T. Garrett, Keytesville; C. T. Holland, Keytesville: R.B. Gladden, Purdy; R. L. Johnson, Rolla; C. Lester Hall, Marshall; M. A. Bogie, Kansas City; O. D. Fitzgerald, Lathrop; C. E. Ewin, Independent; C. D. McDonald, Kansas City; J. B. Wood, Marshall; D. F. Bell, Marshall;

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R. F. Brooks, Carthage, J. F. Graves, Montgomery; S. P. Cutler, Warrensburg: A. B. Sloan, Chas. H. Lester, J. E. Logan, Kansas City; J. E. Eggers, Kansas City; J. M. Langsdale, Independence; D. R. Porter, Lyman A. Berger, Kansas City; Dora Greene, Chillicothe; R. Barclay, St. Louis; A. L. Fulton, I. A. Drake, C. P. Cathcart, L. G. Taylor, Kansas City; J. T. Marsh, Liberty; L. W. Luscher, J. R. Snell, Kansas City; J. M. Richmond, St. Joseph; W. H. Cundiff, Pleasant Hill; G. E. Bellows, Kansas City; P. S. Fulkerson, Lexington; B. F. Hart, Brownsville; W. I. Heddens, St. Joseph; W. F. Morrow, Kansas City; B. F. Records, Smithfield; J. A. Jobin, Kirksville; J. D. Brummal, Salisbury; H. Jejard, East Lynne; W. B. Lucas, Mendan; R. T. Sloan, O. M. Schindel, Kansas City; A. H. Meisenbach, St. Louis; St. Clair Streett, Kansas City; T. H. Hughes, New Cambria; A. Lawson, Kansas City; W. V. Walker, Mexico; C. A. Thompsom, Jefferson City; W. S. D. Johnson, LaBelle; F. M. Johnson, Kansas City; J. A. Herndon, Camden Point; J. Black, T. J. Beattie, Kansas City; Y. H. Bond, J. C. Mulhall, F. J. Lutz, St. Louis; J. C. Rogers, Kansas City; J. B. Hall, Marshall; H. F. Hereford, Kansas City; N. S. Richardson, Macon; E. B. Clements, Macon; N. J. Pettijohn, Kansas City; E. A. Donaldson, St. Joseph; T. Chowning, Florida; B. J. Dysart, Harris, S. M. Forrest, Moberly; S. Redman, Platt City, G. M. Dewey, Keytesville; H. H. D. Moorman, Dalton; A. P. Basey, St Joseph; W. H. Morris, Miami; D. M. Young, Fulton; S. Clark, Belton; O. M. Burman, Chillicothe; H. H. Middlekamp, Warrenton; J. T. Walls, Butler: E. S. Gormer, St. Joseph, W. R. Simpson, Chillicothe; J. B. Jones. Kansas City; W. J. Yates, Kearney; Joseph Sharn, Kansas City; W. R. Rhodes, Fulton; C. Magoon, Clarence; D. T. Powell, Thaver; A. F. Renic, Butler; W. H. Middleton, Kansas City; D. P. Lee, Lone Oak; J. W. Bowman, Kansas City; F. C. Eastman, Winston; J. W. Caldwell, Kansas City; J. F. Wood, Odessa; W. J. Bever, Lathrop; F. A. Glasgow, St. Louis; W. A. Camp, Springfield; J. S. Gillete, Rich Hill; A. B. Miller, Macon; B. E. Fryer, Kansas City; R. E. Young, Nevada; D. E. Wale, Jasper; T. C. Boulware, Bulter; W. C. Glasgow, St. Louis; C. A. Todd, St. Louis; L. H. Calaway, Nevada, A, P. Smith, Nevada; J. T. Aldridge, Keytesville; G. G. Levick, Levick's mill; J. Bryant, jr., Independence; T. B. Jackson, Kansas City; H. O. Hanawalt, Kansas City; E. Von Quast, Kansas City; A. W. McAllister. Columbia; G. A. Moses, St. Louis; W. B. Dorsett, St. Louis; T. S. Watson, Bevier; J. F. Campbell, Bevier; J. B. Hall, Marshall; A. J. Steele, St. Louis, C. W. Adams, Kansas City; G. Homan, St. Louis; T. F. Prewitt, St. Louis; J. B. Davis, Marshall; R. L. Thomson, St. Louis; W. A. Huyes, Kansas City; W. P. King, Sedalia; A. L. McCarty, Sedalia; E. F. Yancy, Sedalia; G. W. Holcomb, Clinton; J. W. Jackson, Kansas City; J. D. Griffith, Kansas City; J. A. K. Gant, Plattsburg; R. R. Hunter, Kansas City; J. H. Duncan, Kansas City; G. C. Mosher, Kansas City; G. W. Burrill, Kansas City, J. T. Bryson, St. Louis; O. A. Williams, Versailles; S. C. Lanphear, Kansas City; A. Dunham, Kansas City; J. R. Croswhite, St. Louis; D. L. Lee, and O. F. Remick, Butler; C. B. Rollins, Columbia; J. W. Robertson, Latham; W. Y. Bever, Lathrop; O. D. Fitzgerald, Lathrop; J. Gant, Plattsburg; P. S. Fulkerson, Lexington; N. A. Grimes, Pittsfield, Ill.; L. J. Matthews, Carthage; G. M. Tate, McGredie;

SECOND DAY.—MORNING SESSION.

The following additional names were registered:

F. E. Bullock, Forest City; A. R. Elder, Harrisonville; R. Barney, Chillicothe; I. W. Davis and J. P. Jackson, Kansas City; H. C. Dalton, St. Louis; R. A. Brown, Stockton; G. W. Cash, St. Louis; P. Paquin, Columbia; J. W. Moore, St. Louis; P. French, and G. H. Nicolls, Mexico; J. M. Robertson and J. McDowell, Latham; W. H. Evans, Sedalia; J. R. Mudd, St. Charles; F. Eyell, Ling Wood; A. Alt, St. Louis; J. M. Tate, Credie; J. Brandt, Warrenton; E. S. Case, Mexico; H. H. Mudd, St. Louis; W. W. Vasse, Thomas Hill; P. I. Leonard, St. Joseph; J. H. Van Eman, Kansas City; H. D. Palmer, Harlem;

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Eliza Mitchell, Kansas City; Jacob Geiger, St. Joseph; J. M. Allen, Liberty; W. H. McPheeters and J. B. Johnson, St. Louis; J. P. Vaughn, Glasgow; G. W. Wilson, Maryville; J. W. France, Adrian; A. Smith, Kansas City; S. S. Todd, Kansas City; J.W. Trader, Sedalia; G. M. B. Maughs, St. Louis; A. E. Gore, Paris; E. H. Gregory, St. Louis; J. H. Stopp, Morton; A. N. Barrett, Hardin; T. F. Charlton, Blue Mills; G. T. Twyman, Independence; F. G. Henry, Waverly; J. T. Bergoff, St. Joseph; C. Smith, Waverly; W. C. Tyree, Kansas City; E. W. Schauffler, Kansas City; A. H. Shively, Pleasant Hill; D. H. Shield, Hannibal; J. E. Oliver, Kansas City; E. E. Gilmore, Adrian; S. S. Laws, Columbia; W. R. Heylman, Rich Hill; H. C. Leonard, Kansas City; T. R. McClintock, Kansas City; G. C. Wilson, Nevada; J. W. Amorman, Nevada; C. H. Hughes, St. Louis; J. L. Warden, Pleasant Hill; W. K. Cullen, Grand River; J. R. Lemen, St. Louis; H. M. Stone, Memphis; J. F. Robison, Winsor; N. B. Carson, St. Louis; F. R. Fry, St. Louis; J. W. Smith, Pleasant Hill; J. A. Bend, Kansas City; R. M. Smith, Pleasant Hill; J. M. McComas, Stugeon; T. H. Horton, Kansas City; J. E. Tefft, Springfield; C. C. Frick, Blue Springs; J. M. Tracy, Mound City; H. C. Garner, Richmond; J. M. Long, Minden Mines; W. Porter, St. Louis; J. H. Kingown, Centerview; W. V. Yates, Kaseyville; L. Bremer, St. Louis; T. E. Potter, St. Joseph; O. B. Campbell, St. Joseph; A. W. Mann, Oak Grove, A. B. Shaw, St. Louis; B. Pitts, St. Joseph; C. S. Merriman, Kansas City; I. N. Love, St. Louis; C. M. Riley, St. Louis; J. S. Wallace, Brunswick; C. Barck, St. Louis; E. Borck, St. Louis.

It was suggested by the committee on scientific communications that an evening session be held, thus utilizing the time before the holding of the banquet, when supplementary papers could be read. To this list was added that of Dr. Lucas, on pneumonia. A motion prevailed, adopting the recommendation of committee.

The committee on credentials made supplementary report, which showed that 212 members had registered.

A paper was read by Dr. A. M. McAlester, of Columbia, entitled, "Short Notes on the Progress of Surgery During the Year 1887."

This was followed by an article read by Dr. French, of Mexico, giving an analysis of 100 consecutive amputations.

Dr. Edwin Borck, of St. Louis, read a paper treating of "The Diseases of and Operations on the Testicles."

"Observations Respecting the Causes and Treatment of Uterine Displacements" was the subject of a paper read by Dr Y. H. Bond.

Dr. William Dickinson, of St. Louis, read a paper entitled, "The Sympathetic Nerve in its Relation to Ophthalmic Disease."

"Colotomy" was the subject handled by Dr. N. B. Carson in an interesting paper.

The paper read by Dr. McAlester was discussed by Drs. Hart, Potter, Schenck, Leonard and Paquin, in a manner that aroused those present to the interest of the occasion. Dr. Paquin, who is the state veterinary surgeon, used his time, but on motion of Dr. King, was granted additional time to discuss the subject of "Bacteriology."

AFTERNOON SESSION.

Dr. King, immediately after the meeting was called to order, arose to state that there had come to his knowledge a case of spinal trouble, and asked that a committee of three be appointed to make an examination. The chair appointed Drs. King, Brooks and Bremer.

A motion was made by Dr. J. M. Allen that those parties who were present, who were unable to procure recommendations, owing to the non-existence of a county or district medical society where they resided, be allowed to become members of the association upon recommendation of a committee appointed for that purpose. After some discussion the motion was withdrawn.

Dr. A. Alt, of St. Louis, read a paper treating of the sympathetic affections of the eye. The gentleman claimed that the general profession should not leave the study of the eye to the specialist alone, but that every practitioner should make an effort to secure [illegible]

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railable knowledge concerning the eye and s relations. He congratulated the profes- on on the advancement made in the treat- ent of the eye, and gave briefly some valu- ble suggestions relative to the action that ould be taken in various cases.

"Eye and Brain" was the subject of a paper ad by Dr. Charles Barck, of St. Louis. The per was of more than ordinary interest, d was well received by the members.

Dr. B. E. Fryer, of Kansas City, gave the story of a case of albuminuric retinitis of regnancy, which had come under his obser- ation, and the deductions made by him, hich he claimed were generally applicable other cases of that nature.

Dr. W. P. King, of Sedalia, assistant sur- eon of the Missouri Pacific railroad, read an teresting paper on "Railroad Surgery." He ad photographs with which he illustrated everal amputations that had come under his bservation. It was ordered by the conven- tion that the paper be published, and appro- riate cuts prepared to illustrate it.

"An Operation for Entropian," was the sub- ect of a paper read by Dr. J. H. Thompson, Kansas City.

"The Treatment of Some Forms of Sup- uration of the Ear" was ably handled by Dr. Charles A. Todd, of St. Louis.

At the request of the writer, Dr. J. P. Parker's paper on "Trachoma" was referred ithout reading.

Dr. J. P. Bryson, of St. Louis, read an ex- austive review of the subject, "Electrolysis n the Treatment of Urethral Stricture." This as followed by a paper bearing on this treat- ent in the cases of tumors, read by Dr. T. . Potter, of St. Joseph.

After the reading of the papers, a general iscussion of several of the subjects pre- ented followed, in which a number of the nembers present participated. The paper ead by Dr. T. E. Potter, advocating the use f electricity in the treatment of tumors and ricture, brought forth a spirited discussion.

Evening Session.

The house was called to order by the pres- nt at 8 o'clock.

Dr. J. L. Thompson moved that 12 o'clock Thursday be set as the hour for the election of officers for the ensuing year.

The motion was carried.

The president then appointed the follow- ing gentlemen as a committee to nominate all of said officers except the president: Dr. J. E. Tefft, Springfield; Dr. Lyman Berger, Kansas City; Dr. O. A Williams, Versailles; Dr. Pinckney French, Mexico, and Dr. J. B. Dysart, Paris.

On motion of Dr. Middlekamp 12 o'clock Thursday was set as the hour for selecting the place for the next meeting of the associa- association.

Dr. J. M. Richmond, of St. Joseph, read a short but interesting paper.

Dr. Meisenbach read a paper on "The first Care of the Injured." It is to be regretted that time did not admit of a discussion of this important paper.

Dr. W. V. Lucus, of Mendon, read a paper on "pneumonia," in which he advocated the use of quinine.

Dr. Frank B. Fry, of St. Louis, presented the next paper upon "Paramyoclonus multi- plex." The paper related to the spasmodic action of the muscles of the limbs, especially of the lower extremities. The case of a young woman, who suffered from these spasms, was related, and the fact mentioned that she had worked a sewing machine for twelve years.

The next paper read was upon "Diseases of the lymphatics and absorbents as a cause of anemia," by Dr. O. B. Campbell, of St. Jo- seph. Remedies were suggested for the treatment of the disease.

The association then adjourned to the Cen- tropolis hotel.

The Banquet.

The banquet at the Centropolis Hotel as an expression of hospitality on the part of the physicians of Kansas City, extended to the state association, was a grand success. The company of more than three hundred men "who are as free to enjoy life as they are brave in the fight against disease and death," who were gathered in the banquet hall pre-

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sented an appearance that was well calculated to make every citizen of Kansas City feel proud of their honored guests.

Promptly at ten o'clock the toast master, Dr. E. R. Lewis, gave an order for the company to be seated. Rev. J. O. B. Lowry offered a short blessing.

The menu was such as one might expect at Delmonico's in New York. The occasion was enlivened by music from an excellent orchestra, seated in the balcony.

At a late hour a message was received stating that Gov. A. P. Morehouse could not be present, and Dr. S. S. Laws, of Columbia, president of the state university, in response to the toast, "The State of Missouri," said: "She rightly bears the title as the empire state of the west. Less than one hundred years ago our state was an Indian hunting ground. Slowly she assumed a growth that was gratifying, and now is the center of an advanced stage of civilization.

"I would not, as a business transaction, trade the state of Missouri for any state between the Atlantic and Pacific oceans. We, as citizens of the state, are united. Of none of our institutions have we reason to be prouder than those devoted to education.

The educational institutions of Missouri are sustained and supported at an expenditure of $5,000,000 annually, with an attendance of 10,000 pupils.

Dr. T. F. Prewitt, in response to the toast, "The Medical Profession of Missouri," said:

"To be called upon so unexpectedly, makes it a case of innocence abroad. If I were like Dr. King, who like the silk worm, ready to spin as long as he has something to eat; or, like Dr. Hughes, ready to make an impromptu on a week's notice, I would not complain. I admit that the subject of this toast ought to be inspiration enough. Less than fifty years ago there was not a medical teacher in the state of Missouri. There was no such thing as medical organization; every man stood alone. First came a local organization at St. Louis, and a short time afterward, just thirty years ago, the state association was organized. Then the famous men could be counted upon your fingers, but now there are many in the association known to the world. The medical profession of Missouri is to-day a body that is a credit to the world.

Dr. W. L. Schenck, of Osage City, Kansas, in response to the toast, "The Medical Profession of Kansas," said: We have no machine in Kansas to grind out doctors, and the reason may be that we have no one to fill the chairs in such an institution, but we can do with this as we do with practitioners—import them.

The speaker referred to an address to be delivered soon by Chancellor Lippincott, in which reference would be made to a medical university in the state. He said that the people of Kansas wanted such an institution, but not until the state would endow it sufficiently to enable the college to have the best talent the country could afford, so that it might never be tempted; that students could never enter ignoramuses and come out asses. He closed by paying a glowing tribute to the profession.

Judge John F. Phillips in response to the toast, "The Law or the Legal Profession," said: On such occasions, lawyers should be assigned to respond to toasts about doctors and doctors should be given the subject of lawyers and the law. By such an arrangement if both did not get justice they would more likely get their dues. Continuing he said:

Law is universal. It comprises, as a generic term, all the moral and physical forces and principles governing heaven, earth and hell. By fixed laws all things are ordered. God reigns by law. By it the waters of the seas are held in their basins, and fall back from their strife against the everlasting shores. By it the huge leviathan sports in the mighty deeps and navies ride upon their bosom. By law the sun stands in his place to flood the earth with light, and by law the globe whirls its sides to the great orb of light and life.

The doctors are lawyers, as they meet in annual convention and expound the law of anatomy, physiology, hygiene and medicine, as much so as when the dose given miscarries

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the surgical knife slips, and the patient
s, and they and their lawyer satisfy the
y that it was the mysterious law of Provi-
ıce that carried off the patient. The school-
n and scientists are lawyers, as they ex-
ınd the hidden mysteries of the arcanum
nature, and unfold

"Dark, tangled doctrines, dark as fraud can weave,
Which simple votaries shall on trust receive,
While craftier feign belief, till they believe."

However much imposters and charlatans
y have called down on the profession as a
ss, the ribald jest and maledictions of men
all ages, the history of civilization shows
it in every struggle for social reform, for
ıstitutional liberty, and human freedom,
› lawyers have been knights whose waving
ımes have been in the very forefront where
fe is lost or freedom won." As a class I
metimes think they grow better as the ages
reep by.

Old Pleydell, in "Guy Mannering," said: Law is like laudanum; its more easy to use as a quack does than to learn to apply it ke a physician." So it ever has been from e beginning, and will be to the end, that ysters in the law, like quacks in medicine, ıtnumber the really good and meritorious, st as charlatans outnumber scholars, dudes, ntlemen, and mere politicians statesmen.

"The Pulpit," was responded to by Rev. J. Morris, of Kansas City. "We stand here night upon a common platform—the law-r, the doctor, the preacher, the man. It is broad plank and will hold us all. While all us are brethren, the doctor and the preacher e twins. I don't mean to declare that the ctor's sphere is in the body and the preach › in the soul. These two spheres run to-ther, so that the doctor is sometimes a eacher and the preacher a doctor. I am ıny times astonished at the audacity of edical science. It attempts such high things d accomplishes them with such a glowing ccess. I hold that we are very close kin. feel that I am standing very much on my n ground when I stand here with doctors."

Mr. E. C. Corcoran, Kansas City, responded the toast, "The Druggist." He said drug-sts were greatly indebted to doctors. He called attention to the "growing evil of the day" and said that by the united efforts of physician and druggist much might be done to check the evil.

"Woman" met with a brilliant and happy response by Dr. C. H. Hughes, of St. Louis. He paid a fine and impressive tribute to woman, and was often interrupted by hearty cheers.

"Kansas City" was the last toast proposed by the master of ceremonies, and response was given by Dr. S. B. Sloan, of this city, who briefly reviewed the history of its past, and said the present gave every promise for a more brilliant future.

THURSDAY.—MORNING SESSION.

Dr. A. B. Shaw read a paper on "A Case Presenting Unique Symptoms, the Result of Disease of the Nervous System, due to Railroad Accidents."

Dr. Ohmann-Dumesnil read a paper on, "An Indigenous case of Leprosy."

Dr. Wm. Porter requested that his paper on "The Effects of Syphilis on the Lungs" be read by title.

Discussion was called for, but no one responding, the regular order of business was taken up.

The committee on state medicine recommended that the next legislature be requested to appropriate sufficient funds to carry on the work of the state university experimental and vaccine laboratory, and to supply vaccine free to all public institutions, health institutions, and health offices, and at a minimum cost to the profession.

On motion some of the afternoon papers were read.

Dr. B. F. Wilson read a paper on "Nervous Pathology."

Dr. Heddens, of St. Joseph, read a paper on "The Radical Cure of Hernia."

Twelve o'clock having arrived the election of officers was now in order.

On the first ballot Dr. A. M. McAlester, of Columbia, was elected as president of the association for the ensuing year.

On motion of Dr. Griffith, of Kansas City, Dr. McAlester's election was made unanimous.

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The following gentlemen were nominated for the offices named:

For Vice President: J. D. Griffith, Kansas City; J. H. Britts, Clinton; W. A. Camp, Springfield; H. C. Dalton, St. Louis; J. B. Winn, Macon.

For Secretaries: J. C. Mulhall, St. Louis; J. H. Duncan, Kansas City.

For Recording Secretary: L. I. Matthews, of Kansas City.

For Treasurer: C. A. Thompson, Jefferson City.

The committee appointed to act upon the suggestions embodied in the address of President Lutz, reported, and the portion of their report, not including the amendments to the constitution, was adopted, and the committee retained. The remainder of the report was tabled until the next meeting of the association.

Springfield, Mo., was selected as the place for holding the next meeting.

AFTERNOON SESSION.

Dr. J. M. Allen offered the following resolution which was received and adopted by a unanimous vote:

Resolved, That this association recommend that the general government establish a department of public health.

Dr. S. S. Laws, of Columbia, requested that his paper on "The Objectivity of Sense Perception" be read by title.

Dr. I. N. Love read a paper on "The Management of Typhoid Fever," "The Nervous System in Disease" was the title of a paper read by Dr. C. H. Hughes.

Dr. G. Hurt asked the privilege of finishing his paper beating upon the laws and appropriations of each state and the United States in the interest of the health of the public and to have it published in the records of the association.

President-elect McAlester made a short address of acceptance, after which a resolution was passed, tendering thanks to the citizens of Kansas City for their courtesy and kindness extended to members of the association, and the convention made a final adjournment.

O. & M. EXCURSION TO THE MEETING OF THE A. M. A. AT CINCINNATI, OHIO.

St. Louis and the surrounding country will send a good delegation to the meeting at Cincinnatti and the general determination appears to be to all go together over the always accommodating, rapid and reliable route, the Ohio and Mississippi.

The great advantage of this line is that the time between St. Louis and Cincinnati is much shorter and the great number of trains each day.

Four trains each day go between the two cities. The three most important run as follows: Leaving St. Louis at 8 A. M., 7 P. M. 8 P. M. each day and arriving at Cincinnati 6:30 P. M., 6:50 A. M. and 7:10 A. M.

The accomodations are superb; the rate will be one and one-third fare and all reasonable favors will be allowed. Properly signed certificates will be requisite.

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THE WEEKLY MEDICAL REVIEW.

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ORIGINAL ARTICLES.

REPORT OF 691 OBSTETRICAL CASES.

BY N. GUHMANN, M. D.

The following is a tabulated report of 691 cases of midwifery which I have attended, 24 being twin deliveries making a total of 715 children.

Vertex presentation	586
Face presentation	9
Breech, feet and knee presentation	71
Shoulder, arm and hand presentation	49
Natural deliveries	490
Deliveries by turning	73
Deliveries by forceps (22 per cent.) (including 2 cases craniotomy)	150
Not delivered	2
Male children	383
Female	330
Unborn (not delivered)	2
Still born	116
Hydatids (Grape moles)	5
Prolapse of cord	17
Prolapse of cord reduced and children born alive	8
Placenta previa	9
Placenta previa and not delivered by me	3
Placenta previa fatal to mothers	3
Puerperal convulsions before delivery	4
Puerperal convulsions before delivery fatal to mother	2
Puerperal convulsions after delivery	2
Puerperal convulsions fatal	1
Rupture of the uterus (all fatal)	4
Mothers died before delivery	3
Causes of death exhaustion	2
Causes of death puerperal convulsions	1

I shall not give the details in the cases, but shall confine my remarks to such practical points as I think will be of interest to the profession. I shall give, so far as I can, the reason why there were so many still births, and why I used the forceps so frequently.

I have known physicians who had practiced general medicine (including obstetrics) for 25 years and who had never used the forceps. Each physician has his own methods of managing obstetrical cases. One will use the forceps in a case in which another would resort to turning, or to craniotomy, or "leave it to nature".

Besides, if a physician pays especial attention to this kind of practice, he naturally gets some of the worst cases. A woman who has trouble at one delivery expects to have it at the next, and she generally sends for an experienced doctor at subsequent deliveries.

I remember at least four women who never gave birth in which there was not a shoulder presentation. One woman I delivered five times, and another six, and there was a shoulder presentation each time. In another case at each of five successive labors there was a breech presentation, and each fetus was dead, and somewhat decomposed. Both husband and wife denied having had syphilis.

The following are the chief causes of death in the cases which I attended. Where the child was dead some days in the uterus, syphilis and accidents were probably the cause. During labor, first, delay, indecision on the part of the family or friends causing physician to be called at a late hour. Second, prolapse of the cord; third, mal-presentations and lastly, narrow and deformed pelvis, rigid os, rigid perineum, feeble and slow action of the uterus. In some cases both mothers and children were lost through ignorance of midwives.

In one case attended by a midwife the head was delivered one hour before I arrived and delivered the other parts of the child. In another case attended by a midwife, a hand protruded from the vagina for more than twelve hours before I was called, I turned the child and delivered it still-born. In another

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case when I arrived I found the cord prolapsed, the os fully dilated, the child dead within the uterus and the woman dying from exhaustion. The midwife had left the case and could not be found.

I could enumerate many of such cases that increased the number of still born children. Physicians who have done much obstetrical practice know that some children perish during labor or shortly after birth and no cause for it can be discovered.

I would say from my own experience that when forceps are properly and carefully used at the proper time, there is very little danger to either child or mother. I have always used the long (Hodge's) forceps, both in the superior and inferior pelvis. I think that the forceps is the best friend a woman has, when they are needed. I am positive that the use of forceps in careful hands lessens the number of ruptured perineums. The worst ruptures that I have seen were in cases in which forceps were not used. The proper way to use them is to guide the child's head with them with one hand and support the perineum with the other hand. When a pain comes on make slight traction when needed, and when the pain ceases let the forceps recede with the head of the child, and unscrew the lock so as to relieve the child's head of the pressure of the forceps. By using them in this way the perineum will not be taken by surprise. It will have time to expand. Of course no physician will forget to empty the bladder and rectum of the patient before using the forceps. I am quite positive that the perineum is oftener ruptured by the shoulder than by the head of the child.

In the majority of cases in which the head is impacted in the pelvis, it is due to a lack of rotation of the head, which in turn is sometimes due to a narrow pelvis.

When the uterine contractions are feeble or entirely arrested I prefer the forceps to the use of ergot.

In some cases in which the head presented at the superior strait, I prefer turning to the use of forceps. The head may not descend on account of a short cord around the child's neck. In these cases the tension of the cord would be lessened by turning, and the cord may unwrap of itself.

Some authors recommend that the cord be unwrapped by passing the fingers into the uterus. This is very difficult to do. I have had several cases in which I could not bring the head down with the forceps, and in which I turned and delivered without trouble.

I was once called by a physician in consultation, to see an interesting case. Some time before I arrived he had applied the forceps and from working with the case he was pretty well tired out. I tried my hand on the case—with my forceps I could not see the least advancement, and the woman was almost in a dying condition. We called Dr. Papin in consultation. I removed the forceps and laid the woman comfortably across the bed.

About one week before this I read of a similar case in which the physician laid the woman on the bed and the child was born without assistance. I related the case to the attending physician and told him the same might happen in the case under our care.

The woman gave a groan, a pain came, on making an examination I found the head of the child had been expelled. The woman died seven hours later from exhaustion and shock. The question arises, why could we not deliver the child with the forceps? Did the forceps interfere with the rotation or the mechanism of labor? Or was the expulsion of the child due to a relaxed condition of the mother? It is my opinion that the forceps were applied too soon.

I give the following details of a case to show the importance of calling consultation in those cases where great responsibility rests on the physician.

I was called to a case and on making an examination found a cartilaginous projection from the posterior wall of the vagina which seriously obstructed the passage. The mouth of the uterus was high up but well dilated, and the expulsive pains very strong. I told the husband that the child could not be delivered without rupturing the perineum, unless Cæsarian section were performed. The

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husband told me that she had been ruptured during a previous labor and he would rather I would deliver the child as best I could. In a short time the strong pains expelled the child and ruptured the vesico rectal wall from the cartilaginous projection down through the perineum and sphincter ani. I called consultation and we sewed the rupture up. The woman recovered but the vagina was somewhat smaller than before the labor. At a subsequent labor the parts were again ruptured, but this time union did not take place after the parts were brought together with sutures.

I was called to see another case which was attended by a midwife. The head of the child had rotated and was impacted in the inferior strait near the outlet. The midwife said the head had been in that position for three hours. I insisted on delivering the child with forceps, warning the family what the result of delay would be. They would not listen to my advice. I left the house, telling them that they would be responsible for the result. Nine hours later they sent for me. I did not want to have anything further to do with the case, but my son who was a young M. D., begged that I go, that he might see the operation. I yielded to him and went. I found the position of the child's head had not changed. There was a greenish watery discharge with a peculiar odor flowing from the vagina. The vaginal wall felt like fine sandpaper. This was caused by the granular condition of the mucous membrane produced by the continued pressure of the child's head upon it. I again explained to the family what the result would be, for I knew they would think the forceps did it.

I applied the forceps and completed the delivery within five minutes, using but little force.

I attended her for thirteen days being careful to draw her water three or four times a day for three or four days, (after which she passed it without assistance) and washing out the vagina with warm carbolized water every three or four hours.

Several days before my last visit, I found her dressed and about the room, and I could not get her to use the syringe or carry out my directions. At this time I took sick, and my son visited her for some days, but he reported that the woman would not use the remedies he gave her.

About six weeks later the midwife called at my office and told me that the woman could not hold her water and a surgeon had been called in, and a lawyer had been employed. I saw the surgeon and he told me that the woman had the largest vesico-vaginal fistula that he had ever seen. I at once went to the patient's house, and took the names of the family and neighbors who had been witnesses. I did this that I might defend myself and to prosecute them for black-mail. They begged off and that was the last I saw of them.

I have seen four cases of rupture of the uterus. One case I think was the result of the administration of ergot; two others by hydrocephalus of the children; the other case I could find no cause. In one of the cases of hydrocephalus, the child's head was twenty-two and one half inches in circumference.

Prolapse of the cord is one of the causes of still-birth. If the prolapse be detected early, and properly managed it may be replaced. In head presentation complicated with prolapse I have always succeeded in replacing the cord with my fingers, in the interval between the pains, and when the pains came on the head prevented further prolapse. In breech, knee, or foot presentations the safety lies in a rapid delivery.

In one case I called several physicians in consultation and our combined efforts could not deliver her. She died undelivered and we could not get a post-mortem on account of the ignorance of the husband.

I had an interesting case of placenta previa, in which Dr. Yarnell was called in consultation We turned and completed the delivery of a live child, and with comparatively little loss of blood. Shortly afterwards the mother collapsed without apparent cause and died in two hours. I attributed her death to embolism.

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I can lay down no rule for the management of placenta previa. Each case has to be managed according circumstances.

Some cases will recover in spite of mismanagement and accidents, while others die even though they have the best of treatment.

I was called to a case, a woman twenty-six years of age, who was attacked with convulsions about 8 o'clock in the morning. It was her first pregnancy. There were no signs of labor. She was edematous all over her body. I bled her and gave her large doses of calomel on her tongue, and injections into the rectum to move her bowels. We had no chloral and bromides at that time and we had to resort to opiates and chloroform. The patient was relieved for the time being. She walked around the room during the morning. About 1 o'clock in the afternoon she began having convulsions one after another at intervals of fifteen minutes. I called consultation and we decided to induce premature labor, but the patient died before we succeeded.

Another case in the eight month of pregnancy was attacked with a convulsion, became comatose and died in two hours.

In another case a woman twenty years of age, in her first pregnancy, had had convulsions for five or six days when I was called. I found her totally unconscious, being in a comatose condition. The bladder was empty. I called consultation and we bled the patient three different times. We made a careful examination and decided that the child was dead, and that the uterus should be emptied of its contents as soon as possible. Dr. Maughs used first a Molesworth dilator and then a Barnes dilator. When the mouth of the uterus was sufficiently dilated,he ruptured the membranes, opened the child's cranium letting out the brain substance and then delivered the child with forceps. This took about two hours and the woman continued comatose. She remained unconscious for several days and then as the kidneys resumed their function she gradually improved and made a good recovery. I have since delivered her of several children.

I have had a number of cases in which there was considerable hemorrhage, but only one that I can call post-partum hemorrhage. The woman was delivered without trouble or accident. While I was attending to the child the mother called me, saying she felt sick and faint, and that she could not see very well. I found the uterus relaxed and distended with blood to the size it was before delivery. I placed one hand in the uterus and the other on the abdominal wall. I emptied the uterus of its contents and contraction followed. I kept my hand on the abdominal wall so as to prevent if possible another attack.

All at once I felt the womb dilating under my hand like a rubber ball. I emptied the the uterus as before and secured contraction. All at once, the same thing repeated itself. This time the uterus would not contract as before. I told the husband to get a pitcher of cold water, hold it high up and pour it on the abdomen. This had the desired effect. A fourth time the uterus relaxed and my resources were the cold water and manipulation with my hands. I was not prepared for any such accident. I had no ergot, and I had no time to send for any. I lowered the woman's head, elevated her pelvis, and compressed the aorta through the the abdominal wall. The patient bled so much she could not bleed anymore. She was blind, cold and pulseless. However after that condition the uterus did not relax again. I began to give her stimulants and I kept my hands over the contracted uterus for four hours. I gave her brandy, milk and beef-tea. She made a good recovery.

In a case of retained placenta due to adhesions, Drs. Hooper, Maughs and I worked for six hours to detatch and remove the afterbirth. We got it away by pieces. The woman was greatly exhausted, but made a good recovery.

Some authors advise that a completely adherent placenta should be left till nature detaches it. I have always found a retained placenta a great source of irritation and constitutional disturbance. After the child is born I regard the placenta as a foreign body

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the uterus and think it should be removed early as possible.

I was called to see a case of hydramnion—opsy of the amnionic sac—I found the woan suffering great discomfort, having a nched and haggard expression on her face, hich was due to tension of the abdomen and essure of the enlarged uterus on the other bdominal organs. Labor pains came on, the aters broke" and I delivered her of two ill-born children (mortified) both presented ith head first. The woman came near dying om hemorrhage and syncope. She made a ry slow recovery.

In one case, on making an examination I und a tumor in the posterior part of the lvis and the child's head was pushing it ong toward the outlet. I could not decide to the nature of the tumor. A strong exlsive pain came on, the mucous membrane urst, and the tumor was expelled, and hung lown over the perineum by a long pedicle. Another pain expelled the child and the pedile of the tumor was torn from its attachment. found the tumor to be a dermoid cyst conining hair, bones and a tooth. The rent the mucous membrane which was about n inches long healed within a week.

I had the honor of delivering a woman enty years of age of a female child, the ther of the child and husband of the woan being eighty-one years of age.

HE BOULDERS AND PEBBLES IN THE PATHWAY OF THE MYCOLOGIST AS SEEN BY A BENIGHTED "NEIGHRORHOOD" DOCTOR.

BY. AMOS SAWYER, M. D.

ad before the St. Louis Medical Society, April 7, 1888.

That the diciples of Mycology as it relates disease have been making too rapid proess, pushing their investigations with a gor only equal to the cocaine excitement, ems to me must be admitted by any one but mycologist, for the latter claims that in or- that a man's opinion upon this subject should have any weight, he must be familiar with the methods employed in his investigations. That such an expression is absurd we have daily evidence. It is always well enough to keep in mind such instances as the trout and bucket of water, the Bergeon treatment, the "Electric Boy." To whom was he indebted for his world wide reputation? To none other than the men of science and physic—the wise men (?) who taking it for granted that the exhibition was honest, gave almost as many reasons in their attempt to explain the phenomenon as there were individuals. Scientific men eagerly purchased his blood at two dollars a drop, hoping that an analysis would clear up the mystery; not dreaming that every time that they received a shock, he was the recipient of one also; and he stood in his stall, day after day for weeks on a damp mat that covered a piece of zinc to which was attached a wire from the battery which made him one of the wonders of this enlightened age, and laughed at science as her votaries flung their dollars at his feet.

That there exists within the blood of animals unknown constituents which are converted by the poison introduced either into the same combination as itself or else form a new one, in either case resulting in a certain recognized disease, to me seems most probable. For as Dr. Linton of St. Louis, used to teach nearly a half century ago: "Disease is an alteration of the quality of the blood and change in the solids consequent thereon." The declaration that every disease is due to bacteria is pushing the spur to the certain discomfort of the rider. I now propose to call your attention to a few of the special boulders and general pebbles, which it seems to me obstruct the passage of the mycologist to the front.

The bacillus tuberculosis is claimed to be rod-shaped and about $^1/_{4000}$ of an inch long; it is regarded as the cause of all forms of the tubercular disease, scrofula and joint inflammations. If this is true, then this microscopic plant rod causes more miraculous changes than did the more gigantic one in the

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hand of Moses, for its mere presence induces wonderful changes in the fluids and solids of our bodies, resulting in disintegration of the osseous, cavernous openings in the respiratory organs and tumerfaction in the muscular. Now the boulders here are:

1. As this plant is said to enter the animal economy by inhalation, why does it not effect a lodgment and destroy the lung structure before passing to the more remote portions?

2. Why is it that those who nurse phthisical patients; husband or wife who occupy the same bed, or the child that nurses the mother escape this dread destroyer though by virtue of their surroundings they must have been compelled to inhale immense numbers of this peculiar fungus?

3. Why is it, as can now be easily proved by witnesses, that forty or fifty years ago the eastern phthisical patient emigrating to this part of the West, as a rule, recovered, particularly when they found it possible (as most of them did) to contract malarial fever? Did the latter plant like white-clover with the prairie-grass, kill the former? How else would it be possible for such patients to recover, if this theory is true.

4. How did this rod reach the unborn phthisical babe? surely not by inhalation.

5. Why, as is commonly the case, is this rod-growth arrested during pregnancy? Lastly, comes the largest boulder—a miniature mountain as it were. Where this rod-shaped mastodon evidences its presence in some limb joint, entailing months or years of suf fering to the victim, the removal of this tuberculous member results, in most cases in the restoration of the patient to perfect health. Did they all, like a swarm of bees, congregate in one spot? Surely all the tissues in such cases must be sufficiently unhealthy to afford a nidus for this plant.

6. Why do rabbits confined in a dark damp cellar die with tuberculosis of the lungs while others of the same lot to whom iron was fed, escape? Is this microscopic rod monster unable to steel itself against this remedy.

Next comes Koch's comma-shaped bacillus, or cholera "germ." Here the most prominent boulder presents a picture which induces different emotions in accordance with the standpoint occupied by the observer; it might be properly called a shifting scene. To the public, after the first derisive laugh, comes the feeling of incredulity, pity and contempt. To the professional eye it is a most humiliating one; for it represents a justly eminent German professor holding up to the public as well as professional view the plant he claims causes one of the most terrible scourges of modern times, and is followed by two burly Englishmen who eat the contents of test tubes filled with them, with impunity.

How is it, when the condition for its continual growth is ever present, that it should become annihilated and the inhabitants remain exempt until a fresh supply is imported from its native nest on the Ganges? Again, there would seem to be no certain period of incubation as there certainly should be if this fungus is the cause. The history of the *disease* at Hillsboro, in 1849, was as follows:

While there was no communication between this town and St. Louis, we remained exempt, but, tempted by the fabulous prices offered for poultry, vegetables, etc., a botanic physician, against the protest of his neighbors, went to the city with a load of produce he remained one night in town, and returned. From the time of exposure until he felt the first symptoms of the disease was 36 hours he arrived home at 3 o'clock of the second day after he left St. Louis, and was at this time unable to drive his horses; he died that night and by 4 o'clock the next afternoon his oldest boy died with the disease; at 12 midnight one of the other children went down and by morning three others; so that inside of 36 hours from his arrival home there were in one of the two rooms of his log-cabin, two dead men, and in the other one, 4 children sick with the disease. From this nucleus it spread like fire in dead grass.

On the third and ninth of November, respectively, 1848, there sailed from the port of Havre, two emigrant ships. There was at this time no cholera at that port or in Paris. When

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days out cholera appeared on the former ssel and in 16 days on the latter, a differ- ce of one week. The most curious boulder the lot is this: Why, for three days after e great fire of 1849, in St. Louis, was there t a new case of cholera reported, and there is a great rejoicing because every one sup- sed that the disease had been stamped t by a purification of the atmosphere con- quent on the great conflagration; but at the d of this time it raged with all its former ry. (Query) Did the nervous excitement ll, or the smoke and heat from the burnt strict cook all the comma bacilli? It cer- inly put a period to them for three days.

Next on docket comes the bull of the lot— philis—for flesh, blood, bone, in fact every ortion of the human form succumbs to its ivages, and its power to overleap the con- eptive barrier is evidenced in the cupped eeth of childhood, the excoriated nail mar- ginals, the palmar psoriasis, arterial tumors, tc., which proves beyond cavil that the sins f the father can be transmitted to the third nd fourth generations. In fact it seems im- ossible to kill this infernal plant when once gains a footing in the human soil. It is orse than the Canada thistle. Why can it e breathed with impunity? Is it due to its rmation, a lack of flying power. At all rents it is fortunate that it can.

The bacillus mallariæ comes in for its share f attention, its intermittent peculiarity dis- nguishing it from that of the other fungi, nd rendering an explanation impossible hough Dr. Sternberg declares that this or- anism does not belong to the bacteria, bnt ther to the protista;which Haeckel classifies the lowest form of life, being neither ani- al nor vegetable, a kind of microscopic Top- y. "Never had any father, never had any other, just growed." Surely then, if this is ue they can probably be called "what its," ery appropriate when we say malaria in con- ection with intermittent fever. Now I laim that every organic substance must of ecessity be either animal or vegetable, and I fy Haeckel or any other man to prove to the ntrary. I charge that it is cowardly to make such a statement;and that a man that will attempt to cover his inability to state which it is by saying that it is neither, is unworthy the name scientific. Now the boulders here are: Why do they at times produce their characteristic symptoms, once a day, every other day, every third day, etc., are there dif- ferent varieties like late and early peas? Why, when apparently killed do they show a tendency to recur every seventh day for four consecutive weeks? Why will doses of any of the cinchona alkaloids given on the sixth day prevent this tendency? When M. Bra- chet immersed himself in the river Seine for several nights in succession, enveloping him- self in blankets on coming out of the water, the result was that a chilly sensation returned the same hour for several days, followed by exactly the same reaction; in other words it was a case of induced intermittent fever, which continued to recur long after he ceased the experiment. Now what established this habit? Surely it could not have been due to a bacillic cause and therefore must have been a habit, as much so as when you sleep after dinner one day the desire or feeling returns at the same hour the next, so with the habit of eating, movement of the bowels, etc.

Pneumonia, according to this fashionable idea, is due to the same cause. Sudden ex- posure to cold or dampness are among the most frequent predisposing causes, are these requisite to set the fungi growing? Dysen- tery, epidemic or endemic appears only with the advent of hot days and cool nights; now which is essential for the growth of the plant, the heat or the cold? I could go on to the end of the list, but hope this will suffice to show the medical reasons for the doubts that are within me.

In surgery, we found one substance lauded to the skies as a perfect antiseptic because some one or more have used it in their prac- tice successfully, but later on some one discov- ers by experimenting with the plants that it does not possess any antiseptic power what- ever, and in consequence it sinks into oblivion. So that at the present time we do not know for certain that we possess any available anti- septic whatever except cleanliness.

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One of the largest boulders we find in this department, one that can neither be gotten around or jumped over, has been rolled into the path by Lawson Tait; it is made up with one hundred and twenty-five successful, unselected operations for ovariotomy, in which he discarded all antiseptic precautions except that which it would be inexcusable for anyone to neglect, perfect cleanliness and washing out the abdominal cavity with warm water until it returned clear. A man living in our town has over twenty sebaceous tumors of the scalp, varying in size from a pigeon-egg to a pea. He set a day to come and have them removed, but before the appointed time arrived, a "pig-spayer" met him and offered to cut them out, as he had done hundreds of times before and never had any trouble; as it cost nothing, my patient consented. He said that the man took his spaying-knife from his pocket, gave it a few whets on his boot, (thereby, I presume, mashing the basillic growth which undoubtedly covered both blade and boot) and taking the tumor between his fingers and thumb proceeded to cut into and turn the contents out, my patient assuring me that he was not in the least inconvenienced by the operation. Spayed hogs keep the cut portion under mud and water most of the time for the first-three days, and seldom die. Whether it is the lard used after the stitching or whether they, like cold-blood animals, are not subject to assault by this fungus is more than I know, though they are tuberculous, but such are the facts. In early times when the operation for stone was usually so fatal, an old priest after studying the anatomy of the parts perfectly on the cadaver, discarding the apparatus major for the knife cut forty patients at the Hotel Dieu, and only one, an old man, died; there was no such thing as antisepsis then, and if there had been could he have done any better? When such substances have been used as iodoform, mercuric bichloride, etc,. like inoculation with the virus of rabies, who can tell how many of those who have died did so by virtue of the poisonous substance which must have been absorbed and not from the operation or disease.

For any substance which possesses the poisonous power to destroy a fungus growth must of necessity be deleterious if not destructive to the higher organization with which it must come in contact when applied to a wound.

PEBBLES.

When a person is badly burned why does matter as a rule form in spite of every antiseptic precaution and form the characteristic contracted tissues? What form of plant causes this? Where do bacteria come from in abscess of internal organs and externally, as in the hand and fingers. How can a person suffering from lung fever ever recover while every breath that they take is laden with trlllions and trillions of these death dealing plants?

Koch says that bacilli have never been found in perfect healthy tissue, only where the degenerative process is set-up. If this is true then they must be an effect and not the cause as he claims of the degenarative process,and he should explain how this degenerative process is"set up". If bacilli are never found in the healthy tissue how do they get into the unhealthy when surrounded by sound flesh, inclosed by a shut-sac or osseous case like the brain. Life has never been shown to have been spontaneously generated by chemical conbinations; therefore, by his own testimony we see that something else must set-up generative process before they can materialize, and that something it would seem is yet to be discovered, and is the important thing to destroy. To illustrate: A slight blow with a stick delivered on the side or back of a fat steer will cause the adipose tissue to break down, and within 24 hours thereafter pus will have formed, in which I presume a mycologist could find bacteria; now how did they get there if they were not already in the healthy tissue? Surely in such a case the stick would be the cause of the disintegration, and the fungi the effect. In simple fracture where pus forms before the impervious skin covering has been broken—the accident was the cause, the bacilli the effect, but the enigma is, where did they come

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from? They could not have been spontaneously generated even if such a thing was possible, for we are told that each specific disease is caused by a bacillus peculiarly its own, as much so as wheat produces wheat and not rye, therefore it is evident that it must enter healthy tissue else it could not cause the disease. When we see growing out of the decayed portion of a living tree, grass, weeds, etc., we do not say because our understanding teaches us to the contrary that these things were the cause of its partial death, but merely an effect, yet such a statement could be made with as much consistency as the other, and with quite as many facts to sustain it, for there is as yet no conclusive evidence which points in a contrary direction. Koch says that there are two comma bacilli so much alike that it is very difficult for even a mycologist to distinguish them, one from the other, but the effect of one is simple that of the other, most disastrous; in other words, one puts a comma to a man, the other puts a comma, the cholera and half of the time puts a period to him also. If the fungi infesting a wound come from within outward then antiseptics are useless; if from without inward, then every antiseptically treated patient should recover from injuries having an external opening.

Did it ever occur to a mycologist that one of these microscopic fungi of which Naegele says it would take two trillions of them to weigh a grain, might contain within its digestive tract, root and branch, or carry upon its surface, like the fly that feeds upon murrianed carrion, sufficient of the poison in which it grew to inoculate a hundred persons. For how are you to isolate and disinfect them? Who can tell how minute a portion of the vaccine virus would fail in the susceptible individuals to inoculate them? For there are atoms so small as to escape the magnifying power of the most perfect microscope. Remember that the chemist can weigh atoms which escape the keenest sight, and that photography can delineate on a piece of paper no larger than a pin's head a group of figures which, to the naked eye, appears to be but a black speck, but under the magnifying power of a glass, every line and feature are as sharply defined and as perfectly finished as though they occupied a surface 10 ft. square. But although the microscope and camera make us acquainted with the peculiar formation of these plants as they exist in the tissues and disintergated cavities of the human form, yet to jump at the conclusion and state it as a fact that the presence of this or that fungus is the cause of this or that disease, and not an effect, with the present evidence, is too premature, presumptious and unscientific, as science, and medicine is one of its branches, deals with facts, not fancies, with knowledge, not belief. For, as Prof. Tyndall has truly said, "One fact is worth five hundred hypotheses."

A single drop of water contains no less than five hundred millions of living specks of organized matter endowed with perfect form, possessing organs of sight, muscles, nerves, teeth, in fact as perfectly and wonderfully constructed as he who alone of earthly beings, can contemplate them, not to mention the fungi and inorganic matter also present. Surely then, the man that pretends that he has fasted 40 days, but during this time drank water, is mistaken, for this living soup will sustain and, therefore, prolong life in proportion to the organic matter which it contains.

Is it a wonder, then, that some of these plants, thus introduced, should find their way into the blood, and from thence effect a lodgment in the disintegrative muscular field, becoming an effect, if this is the soil where they grow? It would appear that they, like the seed of the larger organic specimens, plants or trees, thrive best where decay or corruption is the greatest; for the soil that supports our forest and fields, as well as most of our building stone, are the cemeteries of microscopic beings, of which a cubic inch contains from thirty to forty millions, the greater the number the richer the soil.

That there should exist within the fluids and solids of the body unknown constituents capable of being converted in a certain time,

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varying with each disease, into the same poison as that introduced, just as Dr. Chambers says, "So surely as a thousand hogsheads of malt sugar would be converted into alcohol by an ounce of yeast," seems to me reasonable, in view of the facts that this hypothesis would account for the difference in time of incubation of different diseases; insusceptibility, as well as exemption from another attack, whether some of these constituents result from the decay of glands and capsules, etc., only necessary during fetal life, can only be conjectured. The poisons of insects and reptiles are chemical combinations, and must act by inducing a similar change in the blood; for, unless this is the case, how could such a small amount of poison produce the shock which usually follows. The poisonous properties of strychnine are composed of C_{42}, H_{24}, N_2, O_8; hydrocyanic acid, C_2, HN, and so on, each organic poison having a chemical combination formed within the plant, peculiar to itself, although perchance deriving its nourishment from the same soil as one whose seed or stalk forms some article of food. In every case the effect, when introduced into the circulation is the result of an alteration in the quality of the blood, and change in the solids consequent thereon. As the blood contains all the elements necessary for their production we can see the wisdom of the law which prevents their combination within it in these poisonous proportions.

If this germ theory is true, it would seem that it was of the utmost importance that we should avoid all food which contained decomposing matter as well as the effluvia arising therefrom, in order to prolong our lives and improve our physical and mental condition, for a strong mind can not work with a weak brain.

Now let us consider this subject from a practical standpoint. In 1846, in a description of the inhabitants of the Faroe Islands by Dr. Panum, he says, "They live during a large part of the year upon meat in a state of incipient decomposition, and introduce *vast*, of half-decayed maggoty flesh, fowl or fish, as a special relish at the end of a meal. After a successful catch of whales I have seen the natives eat of the flesh when the bottom of their boat was a mass of wiggling maggots that had fallen from the rotten meat. Now what in the world prevents this island from becoming depopulated, provided this new theory is true? The Englishman's wild meat, particularly venison and woodcock, must be kept until it is "going" or "high," another name for stinking or spoiled, and they announce their presence to the guests the moment the butler throws open the door to the dining-room, and suggests the free use of disinfectants—in fact, would not be allowed to remain on the streets of any village in our state, in such a condition, twenty-four hours; yet, his ruddy complexion and magnificent physique give no evidence of the presence of these fungus causes of disease which must still be alive in the uncooked portions of the rare, stinking meat he has devoured in sufficient quantity to break down the muscular system of an elephant, if but half as dangerous as the mycologist represents them to be.

The Frenchman, with his dry, mouldy cheese, diseased goose-liver and other germ-infested dishes with which he in part satisfies his daily appetite, has not impaired his health, decreased his wealth, or lessened that vivacity for which he is renowned. The German's mental and physical development has progressed until he stands naturally in the lead, and in this, the nineteenth century, with just pride, from every commercial and agricultural field in the civilized world, points to the capitol of his father-land as the fountain-head of knowledge, and yet, this condition largely originated from and is sustained by a diet in which fermented cabbage, rotten cheese and similar dishes cut quite a prominent figure, and proves that food which gives evidence that it is filled with bacillic growth is not an unhealthy diet, or that this new theory has no foundation in facts.

Why is it that the Indian when the combined stenches from body and clothing make his near presence even in the open air, almost unendurable, as a rule, recovers as quickly

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om an injury, gunshot or otherwise, as does is antiseptically treated white brother, hereas, according to this fashionable theory, very mother's son of them should have died. That saves their women when confined? ould occasion require they can take up eir bed, and baby, as soon as it is born, and alk to some distant hunting-ground, or es- pe from an enemy, and not even cleanliness practiced with them. The Apache, with is load of bacteria, was too much of a "great g walk" for his white brother to catch him til he called to his aid some of the same asy race.

The large majority of cuts and bruises re- ived by our people never come under the rgeon's care, yet how rarely do we hear of y serious trouble resulting therefrom. Al- ough in the domestic treatment received leanliness as a rule is scrupulously observed, ntiseptics are never thought of, and bacteria f every description, as well as Haeckel's Topseys have free access to them. How is it hat children's navels almost invariably heal ithout any antiseptic measures having been dopted to prevent the ingress of these dis- tegrative factors? How can an ulcerative r membranous disease of the throat, nose, tomach or bowels ever heal, when millions millions of these fungi are constantly assing over their surface which it is impos- ible to antiseptically protect, owing to their ocality?

How about epilepsy, chimney-sweep's can- er, mercurial ulcers, etc? How is it, when since reation, no effort has been made to stay their ourse, that this fungus cause of disease did ot increase until the human family had been xterminated centuries ago? Yet bi-o-stat-ics roves that the living shuttle has to move ackward and fourth an increased number of imes ere it weaves the mottled web of life, or our race from the cradle to the grave has een lengthened in the last half century, in pite of the presence of this heretofore un- nown factor of disease.

The chemist of today cannot positively de- lare whether the sample of water furnished or analysis is unwholesome even though it is known by the effect that it contains the pe- culiar poison which induces typhoid-fevers, cholera, etc., for there is no proof that filth of any kind largely diluted in the water sup- ply, is of itself, in the slightest degree un- wholesome, although such a condition pro- motes the growth of microscopic vegetable life, which viewed from this standpoint strikes terror to the soul of the observer, yet their action upon the human form is quite as harm- less as most vegetables for bacteria are adult vegetable organisms. We might define them as Joseph Hooper did the weed; "It is a plant of which we do not know the use." Nor has the mycologist with the culture of his micro- scopic cause of diseases, up to the present time added anything to our knowledge in this direction, as evidenced by the failure of Koch, Pasteur, and many of the lesser lights, al- though they may have changed the belief or convictions of many of the members of the profession. Surely the mycologist has run far in advance of the facts and must await the arrival of the correcting corps of surveyors before he will be warranted in establishing a corner in this new field.

It would seem that the personal influence of the leaders in the profession has created with the mass a respect for mere authority, as such, and they have ceased to use their brains in order to find out if there is light where it is represented that it can be found, their capac- ity for the mental digestion of statements either bring so impaired that they cannot, or else too indolent to make the effort, they ac- cept every proposition eminating from such a source, as true, and then bend all their energies to prove it; like their knowledge of medicine, it is made up by inheritance and defended like their estate, because they have fallen heir to it. The craze for new discov- eries it would seem must be met, and the man that expects to retain his title as a leader, realizing this fact, advances honestly in many instances, false and absurd theories, and the jumped at conclusions consequent thereon prompt him to state them to the world as facts. Calm memory coming to our aid shows us the fallacy of their premises, and

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charity accounts for their origin by attributing it to a mental hallucination.

Understand me: I would not discourage speculative science in its relation to medicine as it is a valuable progressive factor, for truth assumed is the initial point from which we begin the quest for real knowledge, it is the beginning of science. The line between speculation and experimental science must always be kept plainly in view in order that there shall be no confusion in the conclusions of the two sciences. Speculative science depends upon experimental science to prove by investigation the truth of the speculative conclusions, for in no other way could this be attained. Hence the necessity in the medical field for two corps of surveyors; the first to lead and the last to follow and correct the errors which of necessity must exist, and often result in the abandonment of the entire line which at first sight appeared correct. The trouble is that the mass go with the first, and the last, but most important corps, has a very meagre following.

Fennimore Cooper said. "He who precedes his age is much less likely to be heard than he who lingers in the rear," but as this has been reversed at the present time, I am aware that I lay myself open to the charge of not being up to the times, an "old fogy;" but my answer to this will be, that as this question is now in the second stage of knowledge—that is, uncertainty and doubt—perhaps when we reach the third stage, or real knowledge I may not be so far in the rear as in its present stage it makes me appear. Rest assured that whenever a member of the profession sets a stake in the field of real knowledge I will be close enough to answer to my name at "roll-call" and to the desire to maintain such a position this interrogative paper owes its birth. If any of the members present can throw a ray of light where all seems so dark to me, they will, by the blending of our minds, at least have brightened mine.

INJURY NO LONGER A WARRANT FOR THE AMPUTATION OF A LIVING PART.

BY E. H. GREGORY, M. D.

Read before the St. Louis Medical Society

Obviously, surgery can have but one aim the conservation of the human body—the application of the head and hands for the preservation of life and limb. Surgery must always antagonize mutilation, be ever ready for a compromise whereby the original constitution and frame, as from our Maker's hand may be kept as nearly as possible in its normal condition. The thoughtful surgeon waits upon nature, realizing how difficult to guide or coerce her, applies himself to learn her methods, knowing that her laws are constant, that he may turn her plans to his advantage, rather than turn his plans to her advantage.

Away, away with the word 'conservative' in connection with surgery, implying the acceptance of some system essentially radical and revolutionary. Let it go with the expression "rational medicine," implying the existence of a converse practice. When a part is killed by violence or diseased beyond reclaim, nothing is left but the comparatively commonplace, meanest operation of surgery, amputation. The great boast of modern surgery, the triumph of the last two years, comparable to which there is no parallel in the history of our high calling, is based on the discovery of new methods of conservation.

It is perhaps in the increased knowledge of the treatment of wounds that the true philosophy of surgery has been most evinced in recent times. The maxim "all wounds are dangerous," is spent. In its stead comes the declaration, "no one should die of a wound," unless its severity directly destroys life. No one injured or operated on should perish through secondary inflammation developed from the wound. Every loss of this kind is a fault of treatment. Again injury does not directly determine inflammation; that serious

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ivents following injury is not inflamma-
, traumatic reaction with its inevitable
t, sense of weariness, with its associated
ness and fulness, swelling, is mechanical,
mical, certainly normal, representing but
rgency physiology, no disturbance of its
cesses, simply a concentration of salutary
ces, marshalled for a beneficent purpose.
mage from violence, heat or chemical
ses, exalts the cell processes, does not vex
l confuse them. Physical causes probably
ot physical results.

Surgery is now ready to assume that in-
y is not a warrant for the removal of a
ing part; the problem of the security is
w solved, that all those countless disasters
l disturbances, formerly inevitable to open
unds, can be controlled. Life is now a
arantee of repair, not a menace, at once
oming the injured part and jeopardizing
fe. And why? Strange though it be, fer-
entation, which helps us to our bread and
r beer, is the culmination of open wound
damity. The real noxa is a vital agency
monstrated beyond equivocation. This vi-
l agency, septic organisms, exists every-
here, is as universal as mankind. It is now
ttled that the most severe injuries can be
flicted without inflammation; foreign
dies, disinfected, may remain indefinitely
en in the peritoneal cavity, without in-
mmation. Fermentation and infection are
e; no inflammation without infection, no
re laudable pus. Now all wounds are
ased wounds, aseptic methods practically
bstituting the skin. Now, all processes
y be fostered, may pursue untrammeled
ir natural bent; make haste to repair, util-
ng all their forces, favored by all the trib-
ry influences afforded by an undisturbed,
nfected general system. Reverse life for
years, think of the absolute certainty of
ction of all open wounds, the local suffer-
the general peril, protracted indefinitely
e midst of dread uncertainty.

hanks to a merciful Providence, surgery
livered from the domain of chance. The
geon no longer stands helpless, powerless,
re a wound he has honestly inflicted; he dismisses dread as to results—that painful suspense between fortune and misfortune is gone. The practical surgeon is the master of the situation; he not only proposes, but he disposes; his presumptions are practical certainties; his teachings embrace at once a knowledge of the origin, nature and fate of his once mysterious enemies, as also of the conditions which prevent and destroy their baleful consequences. Hereafter, knowledge and ignorance, capacity and incapacity, care and carelessness cannot occupy an equivocal relationship in our renowned profession. Nor is the triumph limited to prophylaxis, for aseptic treatment is relatively as important and satisfactory after the victims of injury have been overtaken by putridity. Let us not forget that the treatment is difficult, requiring patience and imposing the utmost responsibility, but with it comes the solace of confidence in results. Wound malignancy is of the past; knowledge, skill and scrupulous care are sure of reward. Contemplate a model modern surgical operation. It may be painless, bloodless and feverless, it may involve the great cavities, embrace joints and marrow; it may be in the young or old, the robust or decrepit, the scrofulous or the syphilitic, and with all as harmless as a corresponding subcutaneous injury. Think of it. All the outcome of the discovery of the mycotic nature of wound diseases, which includes the later discovery, that the real cause of inflammation is a vital agency. Certainly physical causes do not disorder physiological processes, however, much intensified or protracted, there is no cell perturbation. The changes incident to physical causes are local, never infective, harmless. Cell action can alone disturb cell processes. The too cunning cell eludes the clumsy methods of physical agencies. On the other hand infection implies cell antagonizing cell, a clash of cell subtleties; a war for self preservation, victory or death. The control of wound diseases is the pivotal point of surgical decisions regarding the treatment of injured parts. The question settled, the duty of saving injured parts is established, the discus-

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sion ended. Living parts must repair, barring accidents. Physical injuries produce quantitative changes in the involved parts, nothing more, changes that promote repair. Specific or vital injuries determine qualitative changes which become obstacles to repair. The real accidents to wounds are shock, fat embolism, venous thrombosis and pulmonary embolism, unfortunately beyond our control. Infection and putrefaction are not accidents but the inevitables of open injuries, but fortunately within our control. Thus it follows the limits in which amputation may be resorted to are exceedingly narrow, the great step in the march of modern surgery. Now general injuries of limbs alone doom. Then bones being broken, arteries and nerves twisted and torn muscles crushed, in short, the limb killed, mutilation is inevitable. Life or possibility of life in an injured limb implies limited injury. The main vessels may be spoiled, the member pulseless, yet if the injury is not general, the collateral currents will revive the circulation. The destruction of the large nerve trunks is no excuse for amputation: bones will unite normally in paralyzed subjects; besides the continuity can be re-established by suture. Large venous trunks, peril by infiltration and decomposition, proper disinfection disposes of this danger. The rupture of the principal artery may demand ligature, but unless the destruction is general, life may be established by the collateral circulation.

The question of secondary amputation is no longer entertained, assuming that the case is seen in the beginning, buried sutures securing nerves, muscles and bones; asepsis in all its possible details, perfect fixation etc., exclude the question of mutilation.

The surgery of to-day contemplates amputation most remotely; recognizes the possibility of primary amputation, but the wound inevitables which determine secondary and consecutive amputations are now anticipated and prevented. All that has been written about open fractured bones, lying deep among lacerated muscles, suppuration progressive in character; dissecting of spaces, involving medullary cavities, and pus bathed fragmentary tissue has become obsolete; is remembered only as a fable.

A SIMPLE TRACHEOTOMY TUBE.

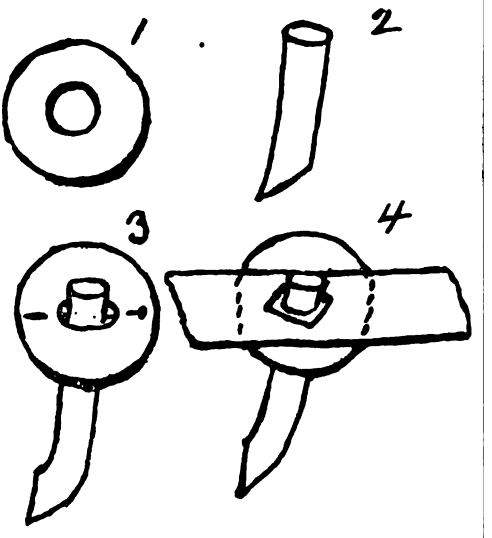
BY A. MEISENBACH, M. D.

Read before the St. Louis Medical Society April 7, 1888.

The tube I show here is made out of ordinary black rubber drainage tubing, to which is fitted a circular perforation—a shield found on many forms of nursing bottles.

The tube is fixed in the shield by passing an ordinary pin through the lips of central opening in the shield and transfixing one wall of the tube thus leaving caliber free. The tube is allowed to project ¼ inch above and any desired length below the shield.

The tube is kept in position by a strip of adhesive plaster into which an opening is cut to let short end of tube project through it.



1. Shield.
2. Tube.
3. Tube fastened to shield by pin.
4. Tube and shield held in position by adhesive strip.

The shield can be made out of a piece of rubber bandage, slice of cork or any flexible sub

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tance that may suggest itself should shields mentioned not be at hand. I have used the tube shown for several years, instead of a metal tube for draining the thoracic cavity after operation for empyema, and have found it very simple and practical easy to retain in position, it being practically impossible to dislodge it on account of the adhesive plaster encircling the projecting end, and pressing shield firmly against the parts. That this form of tube would be an excellent substitute for the hard metal or gutta percha cannula after tracheotomy was suggested by reading a report by Dr. Schmidtman, *Deutsch. Med. Wochenschrift*, Dec. 1887, on the "Use of the Soft Rubber Tubes in Tracheotomy."

The method of Schmidtman to retain tube in position, is to pass threads through each side of the tube and fasten to adhesive strips. The method I show here is much simpler and secure, and there is no danger of dislodgement of tube, which might occur from threads becoming untied.

Schmidtman summarizes the advantage of soft rubber tubes over the ordinary rigid tubes thus:

1. Accurate adjustment in accordance with anatomical relations.
2. Occlusion of trachea above tube.
3. Greater caliber of tube.
4. Diminished irritation of soft parts.
5. Auto-fixation of tube.
6. Diminished formation of crusts.
7. Less frequent change of tube.
8. Readiness and cheapness of appliance.

As far as I know the form of shields, the method of fastening the same to the tube, and the method of holding the tube in situation by adhesive strip is original. This form of tube will be found of advantage wherever a draning tube is to be retained in position for a length of time.

The thermo-cautery, at a black heat, rapidly passed a number of times over buboes, reddens the skin but does not blister. This is the method used at the Roosevelt Hospital, N. Y., to effect the rapid absorption of enlarged lymphatic glands.

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SATURDAY, MAY 5, 1888.

TRAINED NURSES.

The services of a physician are worth but little unless his instructions are strictly complied with. In many cases of serious illness careful nursing is as essential as the prescribing of drugs in the treatment of the disease. It is the duty of the physician when leaving directions for his patient, to see that there is someone who can be depended upon to execute his orders.

This is not always easy of accomplishment. Anxious relatives are generally willing nurses, but they are not always good ones.

Every physician recognizes the importance of learning at each visit what changes have occurred in his patient's condition during his absence. This knowledge can be obtained only by having a competent nurse in attendance.

These difficulties have given rise to training schools for nurses, in which New York took the initiative step. This new field of work proved to be so desirable for young women that hundreds apply every year whom the schools cannot accomodate. As the training is done in the wards of the hospitals the number that can be admitted is necessarily limited. Many young ladies who have "moved in the best circles of society" in the country towns and villages in which they lived, have applied for admission to these schools, that they might earn an independent livelihood. As a rule it is from this class that the limited number is selected, and this has greatly

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raised the social standing of nurses as a class.

The *Lancet* in speaking of the trained nurses in England, says: "All those who are connected either as physicians or surgeons to large hospitals, or as employers of skilled nursing in private practice must have been impressed by two striking facts which have arisen within the last ten years. The first of these is that, from social or economic causes, large numbers of highly educated gentle women of the upper and upper-middle classes have adopted the nursing of the sick as a definite calling instead of remaining at home more or less unemployed, or if obliged to earn a livelihood, instead of entering some such uncongenial life as that of a governess. The natural consequence has been that the social status of nurses collectively has been immensely raised and their individual influence much increased."

Their usefulness in cases of obstetrics has become so thoroughly recognized in New York City, that many are engaged, and their salaries paid for a month or more before they enter the patient's house.

The established rate for their services there is twenty-one dollars a week and board. In many instances they are accepted as companions for the wives of wealthy men.

At present the services of trained nurses are considered too much as luxuries to be enjoyed by the wealthy only; but their general introduction is only a matter of education of the laity to appreciate such services.

Consultation with Junior Practitioners.

A "young doctor," being summoned to a serious case, requested that one of his "old professors" be called in consultation. The senior physician declined the call, saying the people surely were crazy in supposing that he would meet "a boy" in consultation. The "boy" continues as the "family physician," having called a man to aid him—who had less conceit than the "old professor."

A correspondent to the *Brit. Med. Jour.* wished to know if it would be a breach of etiquette for him to decline to meet a man nineteen years his junior, in consultation. The younger physician was "of no special prominence, the only difference being that he practices in the city and I in the country."

The journal refers the inquirer to the code of medical ethics which says: "As a rule, a practitioner should never decline to meet another merely because he is his junior, and he will best consult his own interest and that of the profession by a ready and courteous assent to meet any junior of good. A contrary course would reflect discredit on himself and the faculty."

In the matter of calling consultation, families do well to rely upon the judgment of the attending physician; but they have as much right to decide who shall be the second physician as they had to call the first.

The first physician has a right to withdraw from the case, but by so doing he nearly always loses the confidence of his patient and publishes to the world that doctors cannot work harmoniously together.

"Morning Sickness" in the Husband.

It is well known that cases occur in which the husband is subject to "morning sickness" when the wife becomes pregnant. Dr. Hamill reported a case to the Philadelphia Obstetrical Society, in which the husband was attacked two weeks after the last appearance of the menstrual flow in the wife, and not until the following menstrual period did the wife have any other evidence that conception had taken place. The husband continued to have the attacks for two months. During previous pregnancies the husband had suffered from the same attacks; but not till both husband and wife were cognizant that conception had taken place.

It would be interesting in such a case to know what effect sending the husband from home would have upon his sickness. It would be necessary to withhold from him the object of his separation from his wife, and his mind should be diverted from all thought of her.

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A sufficient number of these cases have been met with to prove that the pregnancy in the woman is in some way the cause of the "morning sickness" in the man. It is easy to understand how emesis or even nausea in one may excite a similar feeling in another, but such cases as the one reported by Dr. Hamill remain a mystery as to how the cause produces the effect.

Nerve force can in some instances be transmitted from one to another. Simply by the exertion of will-power some men can control the action of others.

The fact that married couples who have enjoyed a long and happy life together, not only are alike in disposition and manner, but even in personal appearance, is probably due to the sympathy existing between them.

Trephining as a Means of Relieving Pressure on the Brain.

The careful study of the topography of the brain in recent years has been productive of great good. The number of cases is rapidly increasing, in which a knowledge of the localization of the various nerve-centers enables the surgeon to save life by opening the cranial cavity at the proper point.

Sir Thornley Stoker reported an interesting case, in point, before the Royal Academy of Ireland (*Brit. Med. Jour.*). A man fell from a cart, sustaining such injury that he became insensible. At the time that he came under Dr. Stoker's observation he was in a state of stupor, with left brachial motor-monoplegia and a very partial paralysis of the facial nerve on the same side. The left leg showed a very slight motor insufficiency. There was no sensory paralysis, and the pupils were symmetrical and responsive to light. A bruise, simulating a depressed fracture, existed over the right fissure of Rolando. No accurate history could be obtained, and it was impossible to say whether the symptoms were due to apoplexy or to pressure by blood, the result of laceration of the meningeal artery. On the ninth day the patient became much worse and was evidently dying. He was completely hemiplegic on the left side and was profoundly comatose.

The reading of the case as expressed at the time and which was fully borne out by its subsequent history was as follows: First, hemorrhage over the right motor area between the bone and dura mater, probably due to laceration of the middle meningeal artery or one of its branches, most likely associated with fracture of the bone, and producing the partial left paralysis which at first existed. Second. Subsequent increase of the hemiplegia, either due to renewed hemorrhage or to that sudden yielding of brain function which is repeatedly seen both in hemorrhages or serous effusions which have existed for some time, even though no additional mechanical pressure be exerted.

The existence of the scalp injury over the upper and back part of the motor area was of less diagnostic value than the opposite paralyses which pointed clearly to the engagement of the greater portion of the right motor area including the extensive surface occupied by the cortical centers for the various parts of the upper extremity, the face and tongue, and lower extremity, the interference with them being in the sequence in which they are written.

The belief that the pressure was cortical and not of apoplectic origin was based on the absence of any sensory paralysis, and the teaching so well expressed by Ferrier who says that "strictly cortical lesions of the motor area do not cause anesthesia in any form, and it may be laid down as a rule to which there are no exceptions that if anesthesia is found along with motor paralysis, the lesion is not limited to the motor zone, but implicates also originally or functionally the sensory tracts of the internal capsule, or the centers to which they are distributed." The cortical nature of the pressure was further supported by the existence in an early stage of the case of a pronounced brachial monoplegia.

The injury over the fissure of Rolando was selected as the proper point to operate, because, although not in the center of the en-

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gaged portion of the motor area, a possible fracture existed there. A second trephine button was removed below and anterior to the first which left an oval opening through which was removed a clot of blood, forty millimeters in thickness. No anesthetic was used. Before the patient was taken off the operating table he moved his left arm and leg with tolerable freedom, and asked for a drink of water which he readily swallowed. He made a rapid and good recovery.

We have given this case somewhat in detail as it shows to what degree of certainty deductions may be drawn from the symptoms presented in these cases.

Heretofore the brain has been considered too complex an organ to come within the scope of a general practitioner's studies. But now that the localization of the various nerve centers has been so far determined as to bring the knowledge of them far within the bounds of practical usefulness, physicians who do general surgery cannot afford to neglect to attain knowledge that is so potent for good.

Action by Missouri State Medical Association Regarding National Quarantine and State Sanitary Affairs.

The special committee appointed to consider and report on the suggestions and recommendations of the President's address at the recent meeting of the Missouri State Medical Association, reported through their chairman, Dr. H. C. Dalton, of St. Louis, the following resolutions which were unanimously adopted:

Whereas, The experience of the past has shown that existing means relied upon for the protection of the people of the United States against the introduction of dangerous epidemic diseases from abroad are entirely inadequate to accomplish the desired object: and

Whereas, It being highly desirable in order to secure such protection that the measures employed shall be uniformly and systematically applied, therefore,

Resolved, That in the opinion of this association external quarantine measures should be under the control and direction of federal authority to afford the highest degree of protection to the people of this country.

2. That this association favor Congressional action looking to this end, as in their judgment there is present urgency for such legislation.

3. That copies of these resolutions be promptly forwarded by the secretary to the Members and Senators of this state in congress.

Also the following passed unanimously.

Whereas, Recognising the importance and value to the people of this state of a body clothed with official authority and provided with adequate financial means to enforce existing laws for the protection of the public against disease, the prevention of epidemics, and the furtherance of all wise measures designed to secure the sanitary welfare of the people of this state, therefore,

Resolved, That reposing confidence in the wisdom, patriotism and ability of the State Board of Health as displayed in the midst of adverse circumstances this association approve the course and conduct of the Board, and pledge to its support in its work the influence and authority of this body.

2. That the members of this association pledge themselves to actively exert their influence in their respective localities during the coming year in favor of legislative action in support of the Board, and to enlighten their representives in the General Assembly regarding the wishes of the association in this respect.

3. That a special committee of three members on sanitary affairs be appointed by the President with power to act during the ensuing year, and advise with the Board in all matters concerning needed legislation for the more perfect protection of the public against disease.

Dr. F. J. Lutz, of St. Louis, Dr. J. E. Tefft, of Springfield, and Dr. B. G. Dysart, of Paris, were appointed members of the committee created in the last resolution.

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EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

Iodol has been before the profession now or a little more than three years.

The first therapeutic researches were made by Wolff, he principally demonstrating it to be a good antiseptic. Schmidt, Trousseau, Duefuce, Ferrand, Pick, and Mazzoni have all written upon the subject. Pick states that iodol can be given internally in doses, ranging from 5 to 15 grains, it being better borne than iodoform, and sometimes acts much better than iodide of potassium.

"Assaky, in his two communications last year, dwells especially upon the value of iodol in surgery, where he thinks it superior to iodoform; but he also places a high estimate upon the drug as an internal agent. It has, he says, "a marvelous effect" in tertiary syphilis and scrofula, acting more quickly than the iodides."

Dr. Dudley S. Reynolds expressed his preference some months ago in *Progress* for iodoform as being superior to iodol in every condition where either is indicated.

* * *

I know no more valuable compound for the relief of chronic constipation than the following pill, aloin. $^1/_{30}$ gr., ex. belladonnæ $^1/_{30}$ gr., strychnæ sulphate $^1/_{60}$ gr.

One pill at bedtime, and if necessary an additional one in the morning. The great advantage of the combination is that it acts as a tonic to the muscular coat of the intestine favoring and stimulating peristalsis. An aid to the securement of favorable results is to impress the patient with the habit of selecting a definite hour in the day for attention to that part of the toilet, and to religiously observe the hour, allowing nothing to interfere with the duty.

* * *

In chronic hepatic trouble where there is a doubt as to whether the trouble be carcinoma or gall-stones, it has been stated that progressive marasmus points toward cancer rather than gall-stones. In twenty years at Grey's Hospital no case of gall-stones died of marasmus.

* * *

I question the good taste of medical journals which glean the sewers of the secular press, and catch up the vulgar, unkind gossip of the street in search of carping, cynical criticisms of members of the local profession whether they live on Washington Avenue, or north or south of it, and are prominent or obscure. Medical editors should not forget that there is more of good than bad in the world, that every doctor must run the risk of slander, that one of the most admirable of virtues is charity, and the doctor and the editor in particular should practice the precept "as ye would that others should do unto you, do ye even so unto them."

Let the presentation of our brothers' errors, real or imagined cease, let there be no more disparaging and pessimizing of the profession, and at least let there be something more tangible as a justification for the dissection of character than hearsay evidence.

* * *

As an evidence that one may overlook contributions of value and importance, even though they be placed in a position where it is their duty to scan medical journals closely and carefully, I cite the fact that in preparing a paper upon the Peroxide of Hydrogen, some two months ago a most excellent article upon the subject, written for the *New Eng. Med. Monthly* by Dr. Griswold Comstock, a prominent physician of this city, some two years before, was entirely overlooked.

The paper of Dr. Comstock was a good one, and it presents experience and facts, which confirm me in my appreciation of the value of the peroxide of hydrogen as a remedial agent.

However, the suggestion that the solution be applied by means of an atomizer to suppurative surfaces I cannot endorse. A thorough flushing by means of a full volume syringe is much to be preferred, in that it is more affective in accomplishing the oxidation of the purulent matter.

The application of a ten volume solution

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of peroxide of hydrogen to a diphtheria membrane by means of an atomizer is parallel to the efforts of extinguishing a burning building by means of a gentle stream from a hypodermic syringe, instead of the steady flow from a well equipped and thoroughly manned fire engine.

* * *

It has been said that to rejoice in another's prosperity is to give content to your own lot; to mitigate another's grief is to alleviate, or dispel your own.

This being true, doctors should be thoroughly contented and happy and no matter how heavy their loads, the aiding others to bear their weights of sorrow should develop a great capacity for burden bearing, and it does.

As a class they are not rich by any means, they are uniformly hardworked, they rarely retire from business as age creeps on but usually die in the harness and no one but they themselves and God, ever know what drafts are made upon their sympathies, patience and endurance, and yet withal they are generally cheerful and bright.

* * *

In infants and young children we have no conditions that occasion more annoyance to us and to all concerned than eczema. While we know that the disturbance is primarily in the intestinal canal and diet plays a very important part, yet local treatment cuts a very practical figure in the case. Dr. Russell Sturgis, of Boston, recommends an ointment composed as follows:

Boracic acid (impalpably powdered) two drams to one ounce of Lanolin or wool fat, applying night and morning. I heartily endorse the combination. He also suggests the plain wool fat locally as a ready relief for the intense itching of urticaria.

* * *

Saltus the prose laureate of pessimism, as he has been called, describes, in one of his recent books (Tristram Varick) his heroine Miss Raritan, (how royally romantic is Raritan—who says there's nothing in a name!) in a manner striking and original. Her eyes, face, figure and all are presented in their perfection, but the rousingly realistic is reached when he refers to the skin of her neck and arms having the perfume of health—the corners of her mouth drooped a little—when she laughed one could see her tongue; it was like an inner cut of water-melon, and sometimes, when she was silent, the point of it caressed her under lip" all of which is good, very good, no Bromidrosis there. And as doctors we can thoroughly appreciate the tongue as a means of delineating character. We are familiar with the strawberry tongue so suggestive of gastric irritation but the "water-melon tongue" is something new under the sun. However he should have been more explicit as to the type of melon. If the rich rose tinted variety well and good, but if the luminous lemon colored with black seeds,that suggests the heavily coated yellow tongue so frequently seen accompanying tonsillitis and diphtheria, that is not sentimental. But think of that tongue, that water-melon tongue, licking the lower lip of the fair Miss Raritan in utter disregard of the dangers of "chapping" the same, calling for a requisition of "cold cream."

* * *

We are all familiar with jaborandi as a stimulator of glandular action, but it may be well for us to recall it, when a nursing mother presents herself to us with a paucity of milk. Ten drops of the fluid extract given three times daily, accompanied by a bitter tonic and an abundance of good food and liberal supply of milk to drink will serve us well.

* * *

How the St. Louis delegation in attendance upon the State Medical Society at Kansas City did wrestle with that grand banquet given to the association, at the Centropolis Hotel.

Their long experience as members of the Round Table Club, of the St. Louis medical society, made them shine as expert diners.

When the toast-master, E. R. Lewis, let loose his lucid eloquence, how that company did enthuse. Indeed it was a royal company and a royal good time they had.

* * *

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At the meeting of the Missouri Medical Association, last week, Dr. Ohmann-Dumesnil, of St. Louis, read a report of an "Indigenous case of Leprosy." The patient, a white married woman of 25 years, was born in Mississippi, and had always been healthy until after her marriage, which occurred when she was 19 years. From that time on she suffered from annual attacks of a painful eruption. When seen she had a tubercular condition of the face and ears, the nose was broad and flattened out, the face, scalp and neck were anesthetic, as also those regions supplied by the ulnar nerves. The dorsum of each foot was anesthetic. Some years before, hyperesthesia had existed. The patient was attacked by a severe diarrhea, and on the third day died. The principal point of interest attaching to this case was the fact that it was the first one of the kind observed in the state of Missouri. An interesting question which the author spoke of was in regard to the contagiousness of the disease. He regarded it as infectious, but not contagious.

CORRESPONDENCE.

NEW YORK LETTER.

NEW YORK, April 15, 1888.

EDITOR REVIEW.—Our distinguished patients of the week have been ex-senator Conkling and Dr. Cornelius R. Agnew. Concerning the former's malady and treatment, the daily papers have doubtless given you full particulars. Some surprise has been expressed that the operation of opening the mastoid through "Wilde's incision" was preferred to that of a free incision far up into the tympanum through the external canal, (Sexton's operation) but personally the learned practitioners in attendance considered this to be a less justifiable procedure in this special case and one less likely to give adequate relief. The patient has not had an especially high fever at any time. But he is weak—very weak—and his life hangs in the balance. It will be no surprise if before these lines see type in the REVIEW his demise shall have been announced.

Dr. Agnew commenced attendance on Mr. Conkling, but soon developed symptoms, portending perityphlitic inflammation. The disease progressed rapidly and two days ago operation for evacuation was performed by Dr. H. B. Sands. Dr. Agnew was doing well on last accounts.

Since my last letter, the death has been announced of Dr. Benjamin F. Dawson. He was one of the assistant surgeons to the Woman's Hospital, and in 1868 founded "*The Amer. Jour. of Obstet.*" To this journal he gave for six years his best energies, and contributed of his own private means to place it up on satisfactory foundation. He had invented several small volumes on gynecology, and invented a battery for galvano-cautery work. He had been a sufferer from diabetes some two years before his death.

The papers chronicle the incorporation of the New Amsterdam Eye and Ear Hospital in which instruction and free treatment shall be given in these branches. The names of Drs. R. Thomas and L. Bolton Bangs appear in connection with the enterprise. No further particulars are given.

The recent abuses at Ward's Island Asylum have been revived by the trial for manslaughter of two of the attendants who maltreated a patient, who died soon after. It is agreeable to state that since the occurrence, much better facilities have been afforded the institution for the proper care of its immates.

One of our charitable institutions, the Home for the Relief of the Indigent Blind (for which your correspondent has the honor to be the medical attendant), has received bequests during the past week of fifteen thousand dollars; ten thousand from Miss Catherine Bruce and five thousand by the will of Miss Ellen McLaughin.

The Academy of Medicine has at last taken definite step to secure funds for the erection of a new building. A site up town will without any doubt be selected. The Academy owns its present building which would bring for business purposes probably fifty to sixty thousand dollars, also funds available for building to the amount of one hundred thous-

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and. It has a membership of over five hundred. Its library contains 3,700 volumes and 20,000 pamphlets with a free reading room containing nearly all the medical journals of the world. It makes to the public a very sensible appeal for funds. It needs a fire proof building for which a quarter of a million is needed. The appeal says:

"The academy is not connected with any school or college. It is self-supporting and carried on in the interest of the whole profession. There are no fees nor emoluments of a private or individual nature. It is not supported nor subsidized by the state or municipality. Its aim is the elevation of the profession to a higher scientific standard.

"On the knowledge, wisdom and public spirit of the medical profession, the hygienic and sanitary safety of the country is dependent. If our great city and the republic will be better protected in future than heretofore against the inroads of cholera and other infectious diseases, that result will be due in great part to the efforts of the New York Academy of Medicine."

The Middleton Goldsmith lecturer of the Pathological Society for 1888 will be Dr. J. M. Da Costa,of Philadelphia, whose topic will be The Relation of the Kidney and Heart Affections. At the last meeting of the society Dr. John C. Peters read a very interesting memoir of the founder of the lectureship who was one of the society's formative member. Hereafter the place of meeting will be changed from the Polyclinic building to the new College of Physicians and Surgeons.

Our post-graduate friends had their annual dinner during the week. It was stated that the institution had had during the present college year two hundred and sixty-five matriculants.

Dr. J. West Roosevelt recently read before the academy an interesting paper on Pernicious Anemia. From the careful observation of several cases, he concludes that in some instances there is found a lesion of important organs not directly connected in blood making which possibly may have produced the the disease. Some seem to follow after hemorrhages, others seem to be caused by intestinal parasites; and excluding all these, there are some in which the blood lesion seems to be primary. He also observes that a condition with similar course and symptoms has been noticed with precedent grave stomach, kidney and liver lesions, and that in these cases, however, the condition is so rare as to make it difficult to suppose that under ordinary conditions the blood state could be the direct result of the them.

The discussion which followed was interesting but each speaker admitted that he thought our positive knowledge on the subject to be extremely limited. It seemed to be the general opinion that it is at present impracticable to classify the anemias on the basis of blood-forming and blood destroying operations for we do not really know what these organs are.

J. E. N.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday April 14, 1888. The President, Y. H. Bond M. D.,in the chair J. B. Prichard, M. D., Secretary.

Dr. L. Bremer demonstrated a specimen of miliary aneurism of the brain. The patient had died from cerebral hemorrhage destroying the anterior knee of the internal capsule and discharging into the left lateral ventricle. He said that a time hallowed error still prevailed in our days in regard to hemorrhagic apoplexy, viz: that it was the result of atheromatous and calcareous degenerations of the cerebral arteries. In reality it is miliary aneurisms arising from the destruction of the muscular coats of the arteries and arterioles, which, when bursting, constitute the common cause of intra-encephalic bleeding. The vessels suplying the anterior parts of the central ganglia of the brain are peculiarly susceptible to this pathological change.

He also showed a specimen of malignant endocarditis in which the bicuspid valve had been reduced to a friable necrotic mass and a num-

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ır of warty excrescences had formed in the ft auricle. The clinical course of the dis- se had been a very rapid one, the patient (a)ung woman of 20) dying within six days om the inception of the disease, from uremic ma. There was beside the endocarditis, ute parenchymatous nephritis, considerable perplasia of the spleen, which was four mes the normal size; congested liver, lung id stomach. Two kinds of organisms were und in the necrotic tissue of the bicuspid lve, one, corresponding to the staphylococ- is aureus pyogenes,and a rod-shaped anthrax ke bacillus, the nature of which the doctor id not yet determined.

He claimed that all cases of acute endocar- itis and, for that matter, also all cases of the hronic varieties were of parasitic origin. hey were not due to one microbe, however, ut it seemed that a number of micro-organ- sms were capable of producing an endo-and myocarditis, since this lesion was met with s an accompaniment of a great many infec- ious diseases. As a rule it might be said hat endocarditis was the result of a "mixed nfection," more than one kind of bacteria eing generally met with in such cases. In heumatic endocarditis, for instance, it was he golden-yellow pus producing staphylococ- us, which complicated the disease by destroy- ng the valves of the heart.

Dr. J. M. Scott.—Dr. Guhman told us bout cross-presentations which come from he hands of midwives. We have all seen hem, where the labor has been allowed to go n with an arm presenting at the vulva and he shoulder down in the pelvis. They are ot very frequent but they are sufficiently so or us to get into trouble with them. The ime is coming, and is now, when in the ad- anced teaching these cases of cross-presen- ation will be less frequent than they are to- ay. It will become the duty of every physi- ian when the woman places herself in his are, to visit her in the latter days before labor omes on, and ascertain by external manipu- ation the presentation of that child, and if he finds it to be a cross-presentation it be- omes his duty then and there to rectify it. And the men who are engaged in teaching midwives will teach how to change these presentations. He told us of the cases of placenta-previa, and I admired the way in which he treated them. And about the post partem hemorrhage which he detailed so well. One case struck me particularly, where he had nothing at all with which to combat this terrible condition, and he had the husband pour a pitcher of water upon the women's abdomen. We have all "been there" in cases where everything has passed off well, the uterus is firmly contracted, when she says "O, doctor every thing is getting blind be- fore me," and he steps to her and finds her almost blanched, and he is unable to find the outlines of the uterus at all. These are the cases where the man is very apt to lose his head. This teaches one thing, that no obstet- rician should go to a case without being pre- pared as far as possible for any and every emergency. In this case the doctor was sent for on an emergency call. Every obstetri- cian should carry with him a well working hypodermic syringe, iron and ergot. There is no hemostatic that answers perhaps so well as hot water injection into the uterus. I al- ways make it a rule to see if there is hot water in the house. By squeezing the uterus and swabbing it out, we can contend with the difficulties, but there is a plan of treatment to prevent these cases—and here again I be- lieve that these cases of post-partum hemor- rhage will be lessened by the plan of Crede, and will very seldom occur except in cases of hemorrhagic diathesis. By the way, Crede is not entitled to the credit of the so called method. It is an Irish idea, taught in the Dublin hospital long before Crede was born. The proper management of the third stage of labor will prevent post partum hemorrhage. When Crede's method is adopted these hemor- rhages will be prevented. It is one I have used as long as I can remember. I haven't in- troduced my hands into the vagina after de- livery for I don't know how long. Hereto- fore we were taught to put our hands in to the uterus if there was any delay in the ex- pulsion of the placenta. Byford of Chicago

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recommends expression of the placenta by one hand and drawing on the cord with the other. I have used the Crede's method alone and with no trouble.

Dr. W. M. McPheeters.—In regard to the points which Dr. Scott mentioned I agree with him that we ought to avoid cross-presentation where it can be done, and it may be done sometimes, but it is easier said than done. It may be done, but then the presentation changes and we cannot tell the change that may occur in the last few hours. With regard to post-partum hemorrhage I believe that the proper management of the third stage of labor will prevent that to a great extent. I have had very little trouble in this regard, never having lost a patient from hemorrhage; in fact, have lost but two patients in forty-five years, in labor; one septicemic and the other from eclampsia. As soon as the cord is tied and the child is in the hands of a nurse, I never let go of the uterus until the placenta is expelled and the uterus is firmly contracted. I had, recently, a case where there was firm contraction, but I could feel the womb expanding and I grasped it tightly to keep it under control. On removing my hand I applied a compress. I never give ergot before the uterus is empty, but usually give it after the third stage in order to produce contraction. Crede's method is not new. It has been in use for time immemorial. I am in the habit of making gentle traction on the umbilical cord, so as to facilitate removal of the placenta, and have never found any injurious consequences from it. Dr. Guhman's experience in many of his cases is different from mine, from the fact that he had been called in consultation by midwives so often.

Dr. Guhman.—I have no further remarks to make excepting that ever since I had that case of post-partum hemorrhage, upon leaving I always have the woman put her hand on top of the uterus.

Dr. Sawyer read a paper on "Boulders and Pebbles in the Pathway of the Mycologist as seen by a Benighted Neighborhood Doctor."

Dr. A. Green.—I consider it my duty to say that I could answer every question which Dr. Sawyer's paper contains. In several places he contradicts himself. Will he tell me how he explains the garlic poison? Will he tell me how contagion takes place if you put a lancet in a small-pox vesicle, after which you can inoculate a million of other patients from it? If it were a chemical poison it would kill right off. If the points made in his paper are true, then all the professors in Germany are fools and should be in the Insane Asylum. The germ theory is the greatest discovery made in the nineteenth century. How will you prevent the contagion of small-pox? Will you do it by thorough cleanliness? If you take the contents of a vesicle and kill the germ by heat or by disinfection, and you then inoculate with it, the result will be negative. Disinfection means killing the germs that produce infection.

Dr. Bremer said in substance, that medicine had ceased to be a branch of philosophy, that it had entered the ranks of the natural sciences, and that the only way to prove or disprove an assertion made by recognized authorities on a medical subject, was, not to resort to a priori reasoning, but to repeat the experiments and observe the facts on which those assertions were based. It is not true that in disease the dead material is first and the bacterium next. First come the microbes they feed upon, and cause the death of the living tissue. After this has been accomplished the pathogenic microbes disappear and those of putrefaction begin their work. Facts are not overthrown by raising innumerable questions which, by their very nature are unanswerable.

Dr. Sawyer.—Dr. Bremer said that my paper was made up of questions alone; but this is one of the things we want to do; we have the right to ask questions. The assertions of Dr. Bremer regarding the results of the cultures do not prove them to be true. Koch claims that bacilli are never found in healthy tissue, you claim that they are.

Dr. Bremer.—You are mistaken doctor, you quote Koch and he does not say so.

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Dr. Sawyer.—Take Pasteur with his rabies; how many of those cases came from inoculation? You cannot say and he cannot say. You take an ulcer of the leg, I suppose there are bacteria and that the ulceration is kept up by a fungous growth; however, if you probe around it you will find a sensitive point; cut that nerve and it will get well. Disinfect your germs and then produce the disease every time.

Dr. Bremer.—Did you ever hear of pure cultures?

Dr. Sawyer.—Yes, and Pasteur is afraid to use his first attenuation.

Stated meeting, Saturday evening, April 7, 1888.

Dr. Meisenbach read a paper on "A Simple Tracheotomy Tube."

Dr. T. F. Prewitt.—This patient states that in November he was attacked with a severe cold accompanied by a good deal of discharge from the right nostril, and within two or three days erysipelas set in which affected the right side of his face and head. I saw him about two months afterward, about the first of last January, and I found him suffering then from what appeared to be a postorbital abscess. The whole contents of the orbit were pushed out, the eye turned somewhat outward, and there were deep seated protuberations about the eye. A small opening had formed just above the inner canthus. I found that a probe would pass almost to the depth of the orbital fossa, coming in contact with roughened bone for some distance; the bone seemed ragged as though the edges were roughened; at one time the probe seemed to pass on the outer side of the bone and at another time it seemed to pass into the bone. I enlarged the opening. Water injected into the opening passed out through the nose. The whole antrum was swollen and enlarged, and upon examining below the projecting wall of the antrum could be readily perceived. I made an opening through the gums large enough to admit my finger, and I could feel that it passed into the antrum, the ragged edge of the bone being very perceptible. I then washed out the cavity freely through the opening above and a large quantity of what I supposed to be inspissated pus came out of the antrum. I did not examine it except by sight; but when the water was thrown into the orbit and straight backward, it looked almost as if I was washing out some portion of the brain substance. It was in masses, in chunks, coming out in considerable quantities. Later, I found there was fluctuation over the orbital fossa, and I made an opening over the frontal sinus and found pus in there. The bone had become absorbed and it was only necessary to open the soft parts. In washing this out the stream passed out at the opening near the inner canthus and out of the nose and mouth. The pus was exceedingly offensive. In order to secure thorough drainage, I passed a tube from the inner canthus down through the antrum and out at the opening in the alveolar process. I passed a piece of small drainage tube from the frontal sinus down into the nose. I was anxious to secure thorough drainage from the frontal sinus. He now wears that thread to keep the opening patulous until the parts are in a better condition. The pus had made its way from the frontal sinus through the orbital wall into the orbital fossa and burrowed back to some extent, and at the same time made its way into the antrum so that the two were connected, or else I suppose the suppuration in the frontal sinus and antrum was simultaneous. It was astonishing to see the amount of this thickened, inspissated pus that I washed out. The small piece of tube which you see there now is just passed through the soft parts into the frontal sinus with a view of keeping this opening patulous until the frontal sinus itself shall have returned to a healthier condition, and in order to enable me to wash out the part and keep it thoroughly clean. I have withdrawn the tube from the opening into the inner canthus where the original opening occurred. Fluid still passes up through the original opening into the sinus and out of the nose; and water thrown into the frontal sinus passes out through the nose and out through the opening

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below in the antrum. The statement is made that this trouble followed an attack of erysipelas. I did not see the patient until two months after the original trouble occurred. The opening which I made below into the antrum was pretty free, but it is closing up and I think it will be necessary to enlarge it again so as to secure thorough drainage.

These abscesses are very troublesome, they are slow to get well. I saw a patient about three years ago with the same condition of abscess of the frontal sinus, not involving the antrum, and I enlarged the opening once or twice. The opening closed up in front and the abscess reformed, and now there is a permanent opening into the frontal sinus, and cicatrization has gone on from the border of the integument, and seems to have swept down over the entire cavity of the frontal sinus, and it seems to be about well, or nearly so, as very little pus is formed. I think occasionally a drop of pus appears, but nearly the whole surface of the frontal sinus is lined with epithelium, which seems to have extended from the integument downwards, sweeping over the cavity of the frontal sinus.

Dr. Dudley.—Did the patient have any injury?

Dr. Prewitt.—No, sir.

Dr. F. J. Lutz.—Is there any specific history?

Dr. Prewitt.—No, sir; he has been a very healthy man until this attack.

Dr. William Dickinson.—The case presented is one of great interest to me in consequence of similiar cases which have fallen under my observation, especially as the result of erysipelas. Last year I had a case of greatly impaired vision as the result of erysipelas involving the optic nerve. which to me was very conclusive as the cause of the trouble. The patient derived temporary benefit by the means which we employed, particularly from galvanism, but she abandoned all treatment, and recently I understand she has had a relapse and is even in a worse condition than at first. A case also came under my observation a year or two ago, which was probably the result of erysipelas, in which a similar condition was present as in the case here presented, at all events, a sinus extended from the upper part of the orbit down through the posterior portion of the orbit and also communicating wtth the posterior fauces, so that when the patient held the nose and made forcible expirations the air could be very readily forced through the sinus bringing forth serum and pus in considerable quantities. But with this patient was also combined the existence of a very long polypus in the posterior nares. I could introduce the probe probably two and a half inches backwards and downwards, so that it is probable that an opening had taken place through the floor of the orbit towards the posterior fauces. I readily injected a solution of nitrate of silver into the sinus with a view of exciting healthy inflammation for the purpose of causing the opposing surfaces to unite. He passed from under my observation and I do not know the final result. The progress in this case was probably due to erysipelas extending through the deeper tissues and finally involving the peri-orbita, and in consequence of this tissue becoming necrosed the bone then shared the same fate, the surface being thus denuded gave rise to the roughened condition which Dr. Prewitt described. The doctor did not state whether any fragments of bone were removed.

Dr. Prewitt.—Some small fragments were removed.

Dr. Dickinson.—It is very easy to conceive how the trouble would extend backwards in this way and give rise to very considerable destruction of the peri-orbita, and also of bone lying subjacent. During the war a case presented itself to me in which a malignant ulcer occurred in the person of the quartermaster. It seemed to be confined principally to the tissues external to the orbit near the external canthus. I saw the patient in consultation a day or two before he died.

In that case, however, there was a high degree of swelling of the part which was very hard and unyielding to palpitation, and the

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nflammation had unquestionably even then ttacked the peri-orbita, had passed backrards through the orbital foramen and atacked the meninges of the brain, from rhich involvement he died. At that time I ecommended a free incision at the point rhere the erysipelas seemed to have been loated, with a view of relieving the congestion f the part. It was not done, however. When I saw him first his mind was wanderng, and it was only with considerabte difficulty that he could be aroused to sensibility o as to give rational answers to the quesions. It simply illustrates the progress rhich inflammation may make and the direcion it may take.

Dr. A. D. Williams.—I am inclined to hink from the history of this case that the nan did not have erysipelas, because it is not ften that erysipelas follows a bad cold. On the contrary, these cavities are often involved as the result of a bad cold. I think this man had a very bad cold as the history shows and after three or four days these two cavities were accidently involved by the trouble in the nose, and he had an acute abscess in each of these cavities, giving rise to what the physician supposed to be erysipelas.

I remember some years ago seeing a man who had treated himself for a disease of the antrum by taking a small drill and making a hole through the roots of the teeth into the cavity of the antrum and he kept it open with a long silver probe—an inch and a quarter in length. He passed this probe into the opening and when he wanted to wash out the cavity, he removed the probe and injected whatever solution he wished to use, then he would put the probe back. He kept this up until he antrum got well, without any disturbance to himself.

Dr. F. J. Lutz.—*Apropos* to this case I have seen one which has been of a great deal of interest to me as showing the deleterious result which sometimes follows the use of the nasal douche in connection with inflammatory conditions about the nose.

This patient, a woman, has no specific history, and no hereditary taint so far as I could learn, and she has always enjoyed comparatively good health, never having had any children. About two months and a half ago, she had a cold in her right nostril and at the suggestion of a neighbor, she procured a nasal douche, with which she proceeded to wash out her nose, placing the fountain so high, however, as to make the stream of water quite forcible, and the result was that she had an inflammation of the frontal sinus which spread to the meninges of the brain, and afterwards continued down to the meninges of the spinal cord, producing all the symptoms which we usually see in cerebro-spinal meningitis. I am fortunate and happy in being able to say that she is making a very slow but apparently sure recovery. I mention this case simply in connection with abscess of the frontal sinus which Dr. Prewitt has exhibited, to illustrate again and anew the dire results which sometimes follow the use of the nasal douche.

Dr. Prewitt.—I will merely say that I simply detailed the case giving the history as it was given to me. They state that the man had erysipelas, that it was the result inflammation following cold. There is one point I forgot to mentionr The patient while the abscess was occupying the orbit, complained of so much pain about the head that I believed at one time the trouble might extend to the meninges and probably prove fatal; After he was getting well he still complained of this pain in the head, but it has now disappeared.

Dr. Young H. Bond.—I would like to ask Dr. Lutz if the objection which he complains of in the use of the nasal douche applies also to the post-nasal syringe?

Dr. Lutz.—I have not had enough experience in the matter to answer that definitely. I do not think that patients should be encouraged to use these syringes to wash out the nose either anteriorly or posteriorly. I think it is a matter to be entrusted only to the experienced nurse or the physician himself.

Dr. Rumbold.—I think the trouble in the patient presented by Dr. Prewitt was occasioned

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by a cold, which caused swelling of the mucous membrane under the middle turbinated process. The opening from the antrum of Highmore and the frontal sinus is under this process. Erysipelas does sometime follow in cases like this. I have seen such cases—eight or nine of them, but none of them were so severe as the case presented here. There was no necrosis of the bones or any trouble of the face, all being internal.

DISCUSSION.

On Dr. Meisenbach's paper, see page 490.

DR. T. F. RUMBOLD.—I agree with Dr. Meisenbach in regard to the desirability of simplicity in the construction of tracheotomy tubes.

Some years ago Dr. William Niehaus and I performed tracheotomy on a patient, who besides obstruction in the larynx suffered from a troublesome nasal catarrh. To enable him to blow the secretion from his nose, I placed one end of a rubber tube in the tracheal tube and the other in the patient's mouth. I found that this device not only answered the purpose for which I intended it, but it also formed an admirable means of warming and moistening the air before it passed into the lungs. The air passed through the nose, pharynx, mouth and tubes into the trachea.

After a time it was found that the secretion from the mouth passing through the tube into the trachea caused the patient to cough. To obviate this I attached to the tube a glass trap in which by gravity the secretion collected, and it gave no further trouble. I have used this device in a number of cases.

TAKE THE OHIO AND MISSISSIPPI RAILROAD FOR THE AMERICAN MEDICAL ASSOCIATION MEETING.

Those of the medical fraternity who will attend the annual meeting of the American Medical Association at Cincinnatti, May 7 to 12, inclusive, should by all means go by the most desirable route, the Ohio and Mississippi Railway. The O. & M. is the leading road out of St. Louis for Cincinnati and the East, running through Solid Trains, and making the run of 340 miles to Cincinatti in 10 hours.

Other lines may advertise "fast time," "solid trains," "superior equipment," etc., but the fact remains that the O. & M. is *the* line giving the traveling public accommodations which cannot be equaled by any of its competitors for Cincinnati and eastern business.

The rate for this occasion will be one and one-third fare for the round trip. The following are the best trains to take. Fast Day Express, No. 2, leaving St. Louis 8 A. M. daily, has fine Day Coaches, and magnificent Parlor Cars, and arrives in Cincinnati 6:30 P. M.—Night Express, No. 4, leaves St. Louis 7 P. M. daily, has Day Coaches and Palace Sleeping cars, arriving Cincinnati 6:30 A. M. —Limited Express, No. 6, leaves St. Louis 8 P. M., carrying Pullman Buffet Sleepers, and B. & O. Palace Sleeping cars, arrives in Cincinatti 7:10 A. M.

If you have decided to attend the annual meeting go by the accommodating, rapid, and reliable Ohio and Mississippi Railroad, which lands passengers in the Grand Central Depot, within easy reach of the most prominent hotels.

MR. GEORGE KENNAN will tell in the May *Century* how he came to go to Siberia on the *Century* expedition. Mr. Kennan had spent some time in Siberia already in connection with the overland telegraph scheme, and in the summer of 1884 he made a preliminary excursion to St. Petersburg and Moscow for the purpose of collecting material, and ascertaining whether or not obstacles were likely to be thrown in his way by the Russian Government. He returned in October, fully satisfied that his scheme was a practical one. He therefore sailed from New York for Liverpool in May, 1885. He says: "All my prepossessions were unfavorable to the Russian Revolutionists." He adds that this "party explains the friendly attitude toward me which was taken by the Russian Government, the permission which was given me to inspect prisons and mines, and the comparative immunity from arrest, detention, and imprisonment which I enjoyed, even when my movements and associations were such as justly to render me an object of suspicion to the local Siberian authorities."

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THE WEEKLY MEDICAL REVIEW.

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ORIGINAL ARTICLES.

FIRST AID TO THE INJURED.

BY A. H. MEISENBACH, M. D.

Read before the Missouri State Medical Society, April, 1888.

It is not within the province of this paper to touch upon every thing that may be said in regard to this subject, nor perhaps to offer any thing that may be entirely new. I shall try and confine myself to features of our subject that interest us directly as physicians and surgeons in every day practice, and upon whom is made the demand to act in emergencies. You are well aware that the enormous advance made in the practice of the surgical art within the last ten years has revolutionized surgical technique in almost all of its departments.

The advent of antiseptic and aseptic surgery has opened to the surgeon, fields for operative interference that were looked upon as dangerous ground for the inroads of the surgeon's knife. Every large city, town, and I might even say hamlet, has done its share to aid the development, and establish operations that are considered at this time as perfectly legitimate in the realms of surgery. But where must we look for the material that has furnished the opportunity for some of the most daring and skillful procedures of the surgeon's art, not alone amongst those in whom an unkind nature has perverted the functions in the various portions of organs of the body, thereby producing tumors and growths that obstruct and retard the normal functions, and make the patient's life one of misery, so that in despair they seek relief in the surgeons knife. But also amongst those, who in the possession of robust health are stricken down by the deadly knife, bullet, machine, steam car, and hundreds of other means of injury to life and limb—I mean the accidentally injured.

In the light of present surgical knowledge there is no doubt but that the first care given to an injured or wounded person may to a certain extent influence the progress of recovery of the injured person. Not alone on the field of battle where thousands are maimed and injured by a single fusilade or charge, and where life ebbs away at every pulsation of a human heart, is the first aid to the injured of paramount importance. But in every city, town and village, on railway train and ocean steamer, in every nook and brook where steam and electricity serve obeisance to the human mind thousands upon thousands are injured yearly who do not receive the administration of an intelligent first aid.

But how can this be effected that intelligent aid may be given to the injured? It is not to be understood that the first aid should be given by physicians, for it is seldom that they are the first that are on the scene of injury.

In the large military organizations, of the old world the importance of first aid is recognized and well organized corps exist who on the field of battle, save many a human life by intelligently coming to the assistance of the wounded and injured. In England, exists an association who are teaching classes all over the kingdom how to act in the case of accident and injury. Prof. Esmarch, in Germany, has deemed this subject of sufficient importance to give it his attention in a course of lectures.

Thus far very little has been done towards this movement in this country. But how can the object be attained? 1. By our large

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cities having in their police departments fire departments, and sanitary departments corps who are especially instructed and have the necessary appliances to render such assistance as is necessary in injuries such as controlling hemorrhage, temporary dressings for fractures, supply of stimulants and narcotics to ease pain and prevent syncope. Now it is a sorry fact that municipalities, like St. Louis and other cities, will spend sums of money on frivolities, and yet in all of the public departments no provisions are made for intelligently handling a maimed and injured person outside of the city dispensaries and hospitals.

I have yet to see the ambulance wagon that is supplied with any means of comfortably and safety transporting an injured person to the dispensary and hospital, or in which are any especial appliances to be used should occasion require them in cases of severe fracture and the like, and I further believe that there is not a single driver of an ambulance of our city who knows anything about temporarily supporting a fracture, or controlling a hemorrhage. If there is I have never seen one, therefore it is self evident that provisions should be made by our authorities for a series of lectures to be given the members of the sanitary departments, police and fire department, on the essential elements of first aid to the injured, treating of the controlling of hemorrhages, temporary dressings to fractures, applications to wounds (antiseptic), best means of transporting injured, illustrated by charts, and by practical drills in handling persons and applying appliances.

Not alone should this be confined to the public departments of large cities, but every town and village can be thus organized.

2. All large factories, machine shops and the like should be provided with simple means to control hemorrhages, temporarily protect fractures, bandage wounds antiseptically, and have suitably arranged conveniencies for taking care of the injured until the surgeon arrives or they can be transported to the hospital. All these appliances to be in charge of suitable persons about the works who have received the necessary instruction how to give first aid to the injured.

3. Our immense network of railways has developed the necessity of establishing hospitals at various points and employing surgeons to superintend them, yet how many thousands of persons are yearly injured on trains in smash ups in the dead of night, pulled out of the wreck and laid by the road side for hours awaiting the arrival of surgeons from a distant town, and no one among the persons of the train capable to staunch a flow of blood from some important vessel, or ease the pain produced by the grinding on each other of fragments of bones of a broken member.

Here is one of the finest opportunities to develop at little cost a system of first aid. Most large railway systems have their hospitals and surgeons. Now then have each train, whether passenger or freight, equipped with a suitable number of appliances and dressings, the conductors and brakemen could receive a course of lectures at some of the numerous points where are situated hospitals, these lectures to be delivered by the company surgeons, and at end of each course an examination be held, thus determining the efficiency of the men and those that did not fully understand the subject, lecture them over again. Thus there would be aboard of every train in the land the means of rendering first aid, until the company surgeons would be on hand.

4. Course, of lectures should be delivered to a general public, in the reading rooms of workingmen's associations, in lyceums, to advanced classes in public schools and elsewhere.

All of these lectures and teachings should be supplemented by literature of a simple nature easy to understand and amply illustrated by diagrams showing the applications and appliances.

What should persons understand in order to render first aid in injuries?

It is not to be supposed that there must be a complete knowledge of anatomy and surgery nor that by acquiring the knowledge of what is to be done will in any way conflict with the functions of the physician or sur-

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geon, but on the contrary will assist him in his work, and be of inestimable advantage to the injured, inasmuch as nothing will have been done in ignorance, which it will take the best endeavors of the physician or surgeon to undo or correct.

To illustrate: Last fall I was called to an accident. A car had fallen on a young man's leg. I found on carefully removing his pants that there was a double fracture of the right leg, one a simple fracture of the lower end of the femur above the condyles, the upper fragment very sharp and seemingly ready to pierce the integument. In fact there was great danger of its injuring the popliteal artery. The other fracture was a compound one of the lower end of the tibia about an inch and a half above the ankle joint, and as it afterward proved, a piece of the tibia three inches in length had been gouged out.

The patient having no family, I telephoned for an ambulance to take him to the City Hospital. In the meantime I placed a temporary splint constructed out of a piece of siding at hand and with a few strips of muslin applied it so that the pointed end of bone did not infringe on the popliteal space.

I did not stick my dirty fingers into the wound of the compound fracture, but placed over it a compress of clean muslin, an old towel dipped in cold water.

He reached the hospital in comparative ease and safety.

The surgeon in charge dressed the wound antiseptically and placed the limb in a Hodgen's splint. And what was the result? The wound of compound fracture healed without suppuration and the bone that was gurged out was reformed, the fracture of femur united beautifully and the patient recovered with a limb practically as good as the other.

Now what might have been the result had this patient fallen into ignorant hands. In the first place the limb would have been twisted around in divers ways to find out the the nature of the fracture, and after thoroughly squashing the parts, transported without protecting the soft parts from the pointed fragment and in all probability would have injured the popliteal artery so as to endanger the safety of the limb. Furthermore dirty fingers would have been stuck into the wound over tibia to have found out if the b nes were sharp, etc., and as a consequence infected the wound, and suppurative processes started with their questionable train of symptoms and results.

I do not believe that any one can deny the importance to patient and surgeon of an intelligent "first aid" in a case like this. Now this case is an illustration of thousands of cases of a like kind that are constantly occurring. How often do we see dirty fingers, and dirty probes, inserted into wounds of all descriptions, and how often do wounds come to us into which all forms of imaginable filth have been introduced such as a quid of tobbacco, cobwebs, all kind of varnishes, etc., and why? Simply on account of the ignorance of perhaps a well meaning person who in the kindness of his or her heart were trying to minister to the injured, yet in there ignorance did more harm than good. Therefore I believe a physician or anyone else that places his or her fingers in wounds without the neces sary attention to render them aseptic, I mean clean to be just as culpable as if he or she would examine a woman in labor, without first taking the precaution to disinfect and carefully clean the fingers.

The consequences in the one case may be the same as the consequences in the other, namely, infection and death.

The teachings therefore of an intelligent first aid should be based on the following general principles:

a. *Wounds* to be protected from the inroads of filth and placed in such position as to render the work of the surgeon, less complicated, and thereby decrease the risk to the patient.

b. *Wounds complicated by hemorrhages.* Under this head would be considered the knowledge of the circulation. Of the location of main arteries, and the means to control hemorrhage by compression by simple and suitable means.

c. *Fractures*, this would imply the knowl-

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edge of the skeleton and the means of supporting a fracture for transportation to hospital or home.

d. The transportation of the injured.

e. Bandaging.

f. The general principles of antiseptics.

If as already stated, without going in extent into his subject I have convinced you of the fact that intelligence "first aid to the injured" may be a decided factor in determining the future welfare of the patient, and if thereby I have set you to thinking and you can conceive that this subject is one well worthy of your attention, and the publics at large, and you by giving this your attention will not alone be the means of lessening the suffering and dangers of the injured,but thereby you will aid still more the brilliant results of antiseptic and a septic surgery. I will feel that what has been said will not have fallen upon barren soil.

A POINT WORTHY OF ATTENTION IN CHLOROFORM NARCOSIS.

BY CH. BARCK, M. D., ST. LOUIS.

Read before the Mo. State Med. Soc. April, 1888.

Although the fatal accidents from the administration of chloroform are relatively few, considering the large number of cases of narcosis, they are extremely alarming in the individual instance. The symptoms indicating danger beforehand are very few, and a new one which would increase our security must be welcome. This symptom I want to direct your attention to is the play of the pupil. We know that the main stimulus for the size of the pupil is the light, so stronger the light so smaller its size. When the eyes are shaded or closed, the pupils dilate widely, when either is opened its pupil contracts quickly. This is called the direct reaction. The indirect reaction is a similar but smaller movement, in consequence of the light striking the other eye.

Those movements of the iris are not controlled by the will, they are a reflex-action. The afferent nerve is the optic nerve and the efferent nerve the branch of the motor-oculi passing through the ciliary ganglion. The center of this reflex action is located in the corpora quadrigemina as proven by many physiological experiments. When this center is destroyed or paralyzed, the pupil is dilated and immobile, its normal reflex-contractility is lost.

Considering now the action of the chloroform, we find that it affects and paralyzes first the psychical centers, the cortex cerebri. From there its action spreads downward through the large basal ganglia to the spinal cord, affecting in succession the copus striatum, thalamus opticus, corpora quadrigemina and medulla oblongata. In the medulla is Flourens Noed vital the center of respiration of the movement of the heart and the vaso motor system, and the well known danger in chloroform narcosis consists in paralysis of the medulla oblongata.

So we find the center for the action of the pupil half way between the psychical centers and those for the most vital functions. The loss of this action indicates, that the paralysis is descending, approaching the medulla and that danger is near.

Heretofore, the usual method was to examine the sensibility of the cornea by touching it, and the reflex movement from this the closure of the eye-lids. This reflex action is no doubt a prompt one, the afferent nerve being the trigeminus and the efferent the facial nerve. But its center is located at the origin of the facial nerve in the medulla oblongata close to the center of respiration etc. When this reflex is wanting from paralysis at its center, then the center of respiration is paralyzed too, or very near to it. Really, with a full insensibility of the cornea the respiration stops, and so this test loses its value as an indicator of danger, whilst the loss of the motility of the iris gives us good and timely notice.

This new test is a simple one. The upper eye-lid of either eye is raised from time to time during the administration of the anaesthetic and the reaction of the pupil watched.

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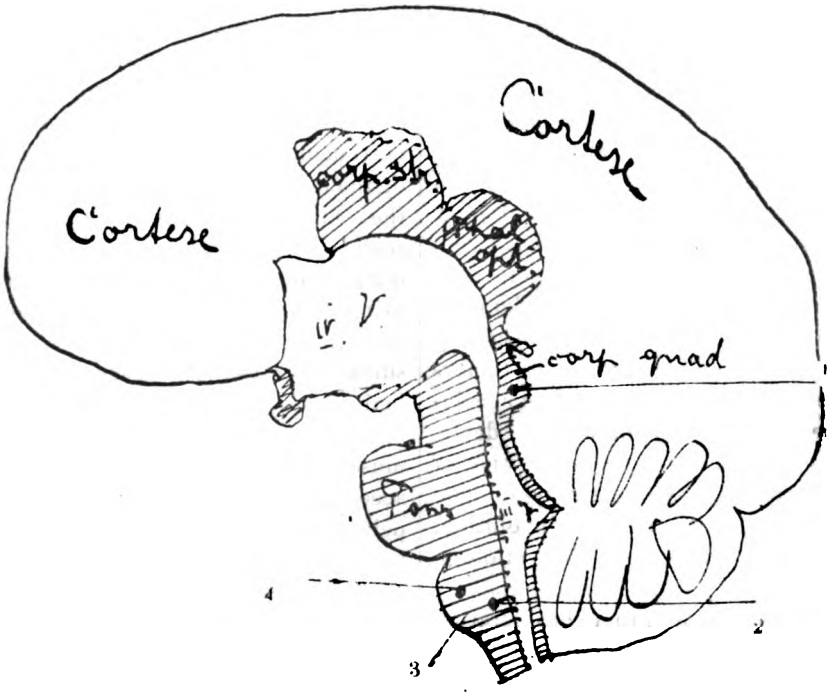
ıe look will suffice. As long as the pupil ntracts readily, there is no danger but as on as it stays dilated, as its reaction is ınting, there is peril approaching and the rther administration has to be stopped.

I have paid attention to this point for some years and have administered chloroform in a large number of cases without accident. I believe this test trustworthy and deserving further examination. I have met with abnormal narcosis three times, in so far as the breathing stopped and artificial respiration



1. Center of reflex movements of the iris. 2. Center of respiration. 3. Medulla. 4. Center of corneal reflex.

ıcome necessary for some time. In two of em them the pupil was dilated and immole.

The conclusions I would like to offer are e following:

The play of the pupil is an important test approaching danger in chloroform narcos. As long as the pupil contracts instanıneously, when the eye is opened there is one; as soon as the contraction is wanting, there is,and the further administration has to be stopped.

I know well enough that many more observations are necessary than my limited experience, to confirm the practical value of this test. But in consideration of the physiological facts upon which it is based I would recommend it to the profession for an impartial trial.

More so than the sensibility of the cornea.

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SOME OBSERVATIONS RESPECTING THE CAUSES AND TREATMENT OF UETRINE DISPLACEMENT.

BY YOUNG H. BOND, M. D.

President St. Louis Medical Society, Gynecologist to St. Luke's Hospital, Consulting Gynecologist to St. Louis Female Hospital, etc.

Read before the Missouri State Medical Society, April 1888.

It would be unbecoming in me, and an offsense to the intelligence of this association, should I attempt on this occasion, a complete and consecutive presentation of the subject of uterine displacements. I shall therefore aim in this paper, to confine myself to certain considerations in this connection, which practical observation and reflection have impressed me as worthy of especial note and significance. Leaving out of consideration such displacements as are accomplished by the intimate or remote connection of tumors with the uterus, I feel justified in the conclusion that the vast majority of uterine deviations are referable to the agency of one of two pathological states, acting singly or conjointly, viz; parametritis and subinvolution, and in deference to this sense of their etiological importance, I have decided to confine my attention on this occasion, to a consideration of the part they play in this relation.

In order that what I may say upon this subject may be the more clearly apprehended, permit me briefly to recall to your attention certain anatomical facts concerning the supports of the uterus. As you are aware, they admit of division into three classes, viz; the pelvic roof, composed of that class of supports extending from the attachment to the symphisis pubis in front, to the upper and middle sacral regions behind; the elements of which consist of the pubo-vesico uterine ligaments, reaching from the pubis to and around the bladder and cervix, the utero-sacral ligaments, extending from the posterior surface of the broad ligaments and uterus, near the junction of the body and cervix, around the rectum, to the upper and middle sacral regions. By means of these supports, the cervix is suspended a little back of the axis of the superior strait. The broad ligaments pass from side to side of the pelvis, and are so connected with the uterus, as to assist in preserving its central position. The round ligaments, go out from the uterine horns, passing a short distance between the layers of the broad ligaments, issuing from their anterior surfaces to enter the inguinal canals. The direction of action of these several supports can be readily appreciated, the pubo-vesico-uterine serving to hold the cervix away from the sacrum, and the utero-sacral serving to hinder too great depression or forward movement of the cervix, whilst the broad ligaments maintain the central position of the uterus, as pointed out; and the round ligaments effect such approximation of the body of the uterus, as to bring it in front of the axis of the the superior strait, in such manner that the posterior surface receives the influence of intra abdominal pressure. Entering into this roof are blood vessels, connective tissue, glandular and muscular elements, all of which assist in the accomplishment of the grand purpose of the pelvic roof, that of supporting the uterus in its normal position, and at the same time permitting those physiological variations of position, requisite to the proper performance of the functions of adjacent organs.

I will not detain you with any consideration of the restraining supports of the uterus, the pelvic floor and perineum, as they do not measurably affect what I propose saying upon the subject.

Observation attests that most cases of parametritis can be traced to uterine inflammations and their products, usually incident to the puerperal state; and that a far less considerable number of cases, can be referred to the irritation of excessive and prolonged traction upon some of the suspensory supports; whilst the influence in this direction, of direct pressure of the sub-involuted, or displaced uterus, is more inconsiderable still. It will then be perceived that I assign to the agency of uterine sub-involution, a minor part

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i the production of parametritis; the re-
erse of this is by no means true, for in those
iflammatory states of suspensory supports,
hich accomplish to greater or less extent,
xation of the uterus, and thus limit the
nge of its physiological variations of posi-
on, I believe we have an influence in effect-
ig the arrest of involution, exceeded in im-
ortance only by inflammatory states of the
rgan itself; the elaboration of this belief, I
ill reserve until further on.

It is only recently that we have recognized
ie agency of posterior parametritis in the
roduction of anterior displacements of the
terus; we now appreciate that the first influ-
nce of the inflammatory action upon the
tero sacral ligaments, results in their con-
raction, in virtue of which the uterus is
rawn from the point of their connection—
he junction of the body and cervix—upward
nd backward, and the fundus is thrown for-
ward and downward upon the bladder. The
parametritis may result in atrophic shorten-
ng of these ligaments, in which event the an-
erior displacement becomes a permanent
onsequence. But a more frequent ulterior
onsequence of the posterior para-metritis is
anifested in undue lengthening, or atrophic
xtension of the sacro-uterine ligaments, in
onsequence of which the pubo-vesico-uterine
ttachments are permitted to bring the lower
ortion of the uterus so far forward of the
xis of the superior strait, that if there be a
orce acting coincidently upon the fundus in
he opposite direction, a posterior displace-
ment may result, should the round ligaments
e so relaxed as to permit it; for their condi-
ion determines, under such circumstances,
he backward or forward position of the ute-
us; since, if they experience inflammatory or
nitiative shortening, the fundus is brought
orward and the cervix backward; and thus it
ill be seen that with a normal or retracted
ction of the round ligaments, posterior para-
metritis cannot result in posterior displace-
ment; showing itself in a version or flexion,
determined by the state of firmness or tonic-
ity in which the uterine walls happen to be
when the opposing forces are in operation.
To be able to appreciate the various shades and forms of deviation of the uterus, that may be accomplished by parametritis affecting the several suspensory supports, it is only necessary that we bear in mind the direction of their action under normal circumstance. This class of displacements may be appropriately designated as irritative, in contra-distinction to the developmental and paretic forms; however, it will be noted—as previously mentioned—that the irritative form usually eventuates in the paretic, as shown in atrophic extension of the implicated supports.

Since subinvolution of the uterus often bears to parametritis a relation of etiological dependency, I will reserve for conjoint presentation, what I have to say upon the subject of treatment.

Subinvolution, Puerperal and Menstrual.

It has, for a long while, been quite customary to attach much importance to puerperal subinvolution as an etiological factor in the production of displacements, the theory of its agency being based upon the increased gravity of the sub involuted uterus, whilst but exceeding little importance, has been accorded that state of relaxation of the uterine supports, which goes along with and is part of the arrested process of regression or involution.

The ligaments of the uterus are mere extensions of uterine tissue, subject to the same vascular and trophic disturbances; when the uterus is stimulated to increased development they share its growth; when the processes of uterine involution are instituted, the same processes are carried on in them paripassu, and since several distinct pathological states result to the uterus from subinvolution, the same may occur to its ligaments. As Byford says:, "in subinvolution, there is at first hyperemia, with hypertrophy of the fibrous, vascular and nervous tissues. The solid portions of the organ degenerate, not into a fatty substance that may be absorbed, but into fibrous tissue of a low organization. Either as the effect of exudation from the

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capillaries, or the slow absorption of the more vitalized molecules of the muscular fibers, or both, there comes to be an undue amount of connective tissue. The transition from the more muscular and highly vitalized state of the uterus, to this one of induration, may be accomplished in a few months, or it may require the lapse of years."

I do not believe that subinvolution of the uterine ligaments has been sufficiently appreciated in this connection. The disposition to treat them as attachments, rather than as outgrowths or extensions of the uterus, has obtained to too great an extent. Whilst the relation of puerperal subinvolution and displacements has for a long time been recognized, the agency of menstrual subinvolution, in similar association, is even at the present time hardly known of. The healthy uterus, under the stimulus of its own nervous supply, affected and influenced by emanations from the ovaries, under normal circumstances, is constantly experiencing trophic changes during the whole of menstrual life. The vascular and nutritive elements of the uterus are gradually increased from the cessation of one menstrual period to the inauguration of the next, during which the vascular supply is reduced to the minimum quantity of health, as well as the increment of solid elements that have been acquired during the inter-menstrual period, and thus menstruation means uterine elimination or involution; the waste at this period should bear a proper measurable relation to the amount of inter-menstrual increment; if from any circumstance it falls short of this measure of reduction the processes of accretion are to that extent excessive, and herein lies menstrual subinvolution, from which protean pathological states of the uterus, supports and adjacent parts spring. It differs from puerperal involution in one essential respect—in that the agency of muscular contraction, which plays so prominent a part in the institution and earlier period of post-partum involution, is here very inconsiderable. But, as in puerperal involution, muscular contraction induces regression only to a certain point, a station short of its perfect accomplishment, from which other influences operate to effect its finish, I suspect that the same classical and varied agencies in point of kind are similarly involved in both instances; one of the most considerable of which I believe to be found in the vascular and trophic changes, permitted and encouraged by the respiratory excursions of the uterus.

It does seem to me that a proper measure of importance has not been given to the influence of those physiological variations of position of the uterus, accomplished by the processes of respiration, in preserving the healthful and normal condition of the vascular and trophic states of the uterus essential to the ends of perfect involution.

The observations upon this subject by Dr. Jacobi are especially valuable, in that they are based upon a measurable feature—the highest order of scientific intelligence: "When the fundus uteri has fallen back of its normal position in the axis of the superior strait, its respiratory movements, or the movements during respiration, become perverted. Normally, the fundus uteri points toward the center of the abdominal walls at the umbilicus. Its respiratory movements, therefore, result from forces acting in two directions: the descent of the diaphragm tends to depress it downward, but at the same moment the protrusion of the abdominal walls tends to draw it upward and forward. On this account, the respiratory excursion of the uterus does not coincide exactly with that of the thorax, but is longer. If a lever be placed on the cervix uteri, and allowed to write on a cylinder simultaneously with a second lever connected with a pneumograph, the duration of the uterine curve will be found to be about two and a half times as long as that of the thoracic curve. When the uterus is retroverted its curve is shortened, as well as markedly diminished in amplitude. The uterus is no longer drawn upward and forward by the suction force of the abdominal walls, but remains exposed exclusively to the influence of the diaphragm; the downward pressure of the inspiration comes in full and

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cessive force upon the anterior surface of ie uterus which thus, at every inspiration, nds to become more impacted in the pelvis. he aspirating force of the upward move- ent of the diaphragm in expiration is di- inished for the uterus, when its fundus no nger floats freely in the cavity of the pel- is." It is impossible to make an accurate timate of the influence thus exerted in aintaining the normal state of the uterine rculation and nutrition, but undoubtedly it very great, and extends as well to the ad- exa. I am quite sure that in our estimate f conditions determining hyperemia of the terus, we have been in the habit of neglect- ig the importance of the force upon the cir- ulation arising from respiratory suction and ompression. We can readily understand hat, thereby, the veins will be encouraged to mpty themselves without over distention, etc. Nor must we overlook another purpose (one of very great importance, too) subserved by the respiratory excursions, viz., the exer- cise or training that the suspensory supports receive therefrom, denied which they would soon become so enervated, as to be unable to maintain the uterus in its proper position.

Having said so much respecting the influ- nces of the normal variations of the position f the uterus in determining its processes of in- volution, as well as those of its ligaments, we re now prepared to introduce the subject of reatment, as applicable to parametritis, the nost frequent cause of interruption or dis- urbance to which its respiratory excursions re liable. Limiting myself to the mechani- al means of dealing with its results, I will ay that, whilst I consider it very desirable hat the uterus should occupy its proper po- ition, since in such position, under normal ircumstances, its physiological functions are best performed, yet the circumstances are of- en so abnormal in the way of diseased sur- roundings that in many instances immediate attempts at correction of irritative displace- ments by mechanical devices would be in the highest degree harmful and reprehensible; hence it becomes necessary that we should divide the affection into stages, appropriate treatment for which varies with the stage in question. We will dismiss the acute stage simply with the statement that during its continuance resort to any mechanical means of correcting devia- tions of uterine position, incident to its pres- ence, would be highly inadmissible and out of the question. (And, parenthetically, I will add, that the appreciation of this posi- tion cannot be too strongly impressed.)

We come then to the subacute, chronic and resultant or atrophic divisions. During the subacute and chronic stages, whilst the sup- ports are sore and sensitive, I have experi- enced the most satisfactory results from the use of cotton tampons of suitable firmness, size and form, and so placed upon the pelvic floor, and in relation to the uterus as to carry it from the point of attachment of the in- volved support in the direction of its action, thus increasing, it may be, the displacement for the time being, but obtaining for the in- flamed ligament rest—its most important de- sideratum to recovery. These tampons are pressed out of a solution of boro-glyceride of alum (boro-glyceride, one part, alum, one part, and glycerine fourteen parts), and per- mitted to remain for two days, when they are replaced by others of similar character. This boro-glyceride solution secures contrac- tion and condensation of the pelvic tissues, and at the same time occasion most copious serous exosmosis.

Irritation in the affected supports having subsided sufficiently, there arises the in- dication for correction of the consequent dis- placement, means for which are to be found in tampons and variously fashioned pessaries. The operative treatment of paretic displace- ments, in which the utero-sacral or round lig- aments, or both have atrophied into hopeless extension, I will only mention to approve. That Alexander's operation for the shorten- ing of the round ligaments is, under proper circumstances, a legitimate and warrantable procedure, I believe no longer admits of question, and I am disposed to think that considerable is to be hoped for in the direc-

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tion of shortening extended utero-sacral ligaments by operative means.

There are many subjects that I intended to include in this paper, such as the forcible stretching of adhesions between the uterus and rectum, by the introduction of the fingers into the rectum, etc., but I have already so trespassed upon your time that I will desist.

PRESIDENT'S ADDRESS TO THE AMERICAN MEDICAL EDITORS' ASSOCIATION.

Cincinnati, May 7, 1888.

BY WILLIAM PORTER, M. D., ST. LOUIS.

BROTHER EDITORS—It was your good pleasure to elect me your President for the year that closes with this session. It has been a year of anxiety and of work, a campaign year, and a year of achievement. I thank you all for the honor which your choice conferred, and for the support which accompanied that choice, yet I have greater satisfaction in remembering what you have done in 1887 to strengthen our National Association, and to aid in the affairs of the last Medical Congress.

Through the success which has crowned both of these enterprises, a new dignity has come to the profession of our country, and you gentleman, as watchful guardians of what is rightfully yours, will see that the prestige does not depart from those who have so richly earned it.

Two things have been clearly demonstrated during the year that has gone. First, the power of the medical press which has so large a part in this Association. Second, the value of unity.

It was to a large extent through the united efforts of the editors of medical journals here represented that a once desperate possibility became a glorious certainty. A heavy responsibility was lifted from your shoulders, as in last September the world's representatives grasped your hands in hearty approval.

Pleasant as is the retrospect, we must not yet rest on our oars, satisfied with the progress already made. The current of life bears us not onward but backwards, unless continued effort is put forth.

In our land with its ever new development, in our profession with its continued advance, there is no rest for the medical editor, no point of complete attainment. While there has been much to do in the past, there is more to do in the future. While we have had need of each other in the last decade we have greater necessity for union in years to come.

Fully impressed with our strength and our requirements, I have desired to depart from our usual custom to-night and to discuss with you plans for a stronger organization and questions of importance in our work.

It may be asked, why have we need of a well organized association? The clouds of '87 have rolled by, and the peace of '88 is upon us, all is well.

Gentlemen, let me remind you that the God who made men made them ambitious, and ambition in our day means rivalry.

I would not attempt to detract from the honor and dignity to which many of our great institutions in the East have attained, nor would I undervalue the untold influence of some of the few medical journals not represented here. We are proud of their work, but we must not forget our part in life's struggle. While the long years of advantage have given to the East the older and stronger Universities, the new wealth and energy of the West is giving large promise of a most substantial harvest.

Do not understand me that I would urge strife and sectional jealousy. Not for a moment would I hinder the dove which returns to the grand old ark of our National Society. But though science is cosmopolitan, personal interest may be local. I love my city better than some other city. I esteem my true and tried associates better than those of whom I know but little. I appreciate all honest workers in medical journalism, but I especially want to see the success of those interests here represented. This success we can accomplish if we are willing to labor with honest united effort.

It is one thing, however, to work for individual advancement; it is another, yet not necessarily antagonistic, to do all possible for

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e largest general result. While it is right at men should form local attachments and ive preference for place and person, it is rong if in so doing they ignore others who ould exercise the same right, and deny that uality which in this land is the birthright every member of our glorious guild.

I am not an alarmist. I have abiding confidence in the ability of this Association and the great national body with which we are closely related, to go onward, to preserve eir identity and usefulness, and withal to present the profession of the United States. But I fully understand that this position n only be maintained by resolving to stand m, determined that those interests which e the inheritance of each of us, shall not be rrowed by sectional lines, nor be endangered by personal jealousies.

I believe in peace and harmony, but I prefer that peace which is made secure by trength, and that harmony the keynote of hich is well secured right. It is well to eet those with whom we have differed hould they so desire, but it may be that in dvancing half way we should do so in solid olumn.

The honest wish of every true American hysician is that we may have a united profesion, and that the sharp dividing lines recently rawn may be obliterated. Let me urge upon ou that in attempting to reach this end, we ust not permit a process of absorption to go , which shall reduce one part of our land to e condition of an outlying province conolled by, and tributary to another part.

Rather let us seek to cement the professional brotherhood which should every where ist, by being true to our own sense of right. et us honor the proffer of fellowship by exnding the hand of self-respect filled with he fruits of patient labor.

If we would grow stronger and more worthy f the trust which is reposed in us by the stuents of current medical literature, we must uard against two dangers. The first is disention in our ranks. The second attacks rom without. I do not fear the second, if re are careful to avoid the first.

There never was a time when a full understanding with each other, and strong, true aggressive action has been more needed than it is now. If we would prevent this goodly kingdom of ours from becoming a mere dependency, we must stand shoulder to shoulder. The Star of the East has reached its zenith, and "Westward the star of empire takes its way." The light of the former is bright and steady, but the imperial star of modern progress shines for us. Its brilliant rays reach every corner of our land, and its course is not stayed by mountain or river.

But words are vain if they do not call forth action. I would strengthen your faith in your mission, but "Faith without works is dead." In this assembly is power; I would arouse it. There is enterprise; let it be stimulated. We have harmony of thought and unity of purpose; let us come closer together in a more definite organization for more effective work.

A strong association can accomplish much where individual effort may be futile. There are many questions demanding attention. The further advancement of our state and national associations, legal control of quackery, the international copyright, the questions proproposed for discussion to night, the upholding of our best schools and journals, and the exposure of poor ones, these are some of the matters of vital importance which call for harmonious and well organized action, by the medical press of the land.

Do I overestimate the need of organization? Remember that in no other nation in the world are there so many medical journals, so many medical editors, ready to engage in any right enterprise for professional justice and advancement, and yet I do not hesitate to say that in no other country is there so much needless friction, so much misunderstanding of men and their motives.

Is not this to a large extent the result of a want of personal knowledge of each other, of a lack of needed conference and plan.

I would oppose limitation of the utmost freedom of thought or speech, and only urge that which will more firmly unite us, and

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make more potent such action as we can together endorse. This much we need, and let us have it.

It has been charged that this association is organized and conducted for purposes other than those of pure journalism.

I need not use this time and place to refute the slander, but it gives me the opportunity of asserting that if to band together, to promote those interests which are just and right and common to us all, to expose fraud in and out of the profession in the North or South, to insist that he who is worthy shall be esteemed whether he comes from the far West or the distant East, to build up our local and state societies, to further the cause of our national association, if to unitedly plan to keep these and kindred questions before the profession be a conspiracy, then we are to-night conspirators of the deepest dye.

I glory in such an alliance, aye, make the circle stronger and larger till it shall include all who have the oath of editorial knighthood upon their lips, and the kingly purpose of right in their hearts.

In you, my seniors in years and experience, have I all confidence that the endurance and judgment which have enabled you to guide others through the wilderness of ignorance in the early stages of our professional history, will not desert you now when base adventurers, and plausible dogmas are enticing the unwary at every turn.

Upon you, my brothers, younger but no less zealous than these, falls the mantle of the leaders who have passed up out of sight. It is your privilege to show yourselves strong yet considerate, aggressive yet gentle, ready each week or month to couch a lance in defense of professional honor, or to speak a word of encouragement and approval to him who needs it.

Indite such thought that men shall catch up the leaves which you scatter far and wide, and give you in return the garland of praise. May your good deeds be known and all your mistakes be forgotten.

ABSCESS OF THE LIVER. ULCERATION OF HEPATIC VENA CAVA.—SECONDARY THROMBI OF PULMONARY ARTERIES.

Service of R. G. Curtin, M. D. Philadelphia Hospital. Reported by A. E. Bradley, M. D.

While resident physician of Philadelphia Hospital, through the kindness of Dr. Curtin, attending physician, and Dr. J. A Davis my associate resident physician, the following interesting case came under my observation, specimens from which, I think, have been presented by Dr. Curtin to the Philadelphia Pathological Society, but I believe no report and history of the case has ever been given. Notes of the case, taken at the time were these:

Richard Burton, æt. 48, white, laborer; family history good, has been a hard drinker; has always had good health until present attack, excepting a catarrh of the head, which he has had for sixteen years. When a young man he had syphilis.

During the past summer, 1887, was at work in Alabama. He was admitted to the medical wards of the hospital Nov. 26, 1887, with the following history.

Twelve weeks previous to admission, he was taken with a severe chill, and every night since, and occasionally during the day the chill has been repeated.

These chills were followed by profuse exhaustive perspiration. At the time of the onset of these chills, he complained somewhat of shortness of breath, and noticed a pain extending around the right side. There existed a slight cough, appetite was poor, bowels constipated, and there had always been a marked thirst since the onset of the trouble.

On examination after admission, his condition was as follows:

He appeared to be a man of fairly good strength and stature, but with a haggard, anxious expression of the face. On inspection position of the heart seemed to be normal, the chest showed a bulging quite marked on the right side, and remained immovable over this region during respiratory movements.

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The abdomen presented a prominence in epigastrium and right hypohondrium. Percussion over this area, especially posteriorly elicited much pain, and dulness extended behind up as high as the angle of the scapula. On pressure over this region, patient complained of much pain and tenderness. An examination of the lungs revealed nothing definite, few rales being detected posteriorally over the right base. The heart sounds were normal.

The regularity of his chills caused malaria to be suspected, but repeated examination of his blood failed to discover any of the characteristic blood changes known to exist in that condition.

The night of admission he had a chill lasting ten minutes, the temperature rising to 103.0°. The following morning it was 98°, on the 28th he had another chill with a temperature of 103° at 5, A. M., and 98° at 6 A. M.

On the evening of the 29th there was a chill at 6:30 P. M.; at 7 the temperature was 105°, and at 8 101:6°.

At 2:15 A. M. of the 30th he had a chill lasting 45 minutes, with distinct rigors, at 4:30 temperature rose to 106.4°, and at 5:30 A. M. was 97°, a fall of 9.4 degrees in two hours.

At 2:15 A. M. of the 1st, had a chill lasting 40 minutes, temperature of 103°. At 2:45 it was 109.4°, and at 8 had fallen to 97.8°; at 7:20 of the 2nd had chill, temperature 101.6°; at 8 was 103°. 4:25 of the 3rd had a chill, 40 minutes duration, temperature 103.4°, at 4:55 A. M. it had risen to 106·2°, and 6:25 A. M. had fallen to 99.4°.

During the day of the 3rd and 4th he had no chill, the temperature not going above 100°; in the morning of the 5th at 8:20 another rigor, temperature 101.4°, and 30 minutes later was 104.4°, and 8 P. M. of that evening was normal. He had no chills during the night of the 5th, or the whole of the 6th.

At 10:20 A. M. of the 7th another chill, lasting 30 minutes, temperature afterward rising to 103°, becoming normal in the afternoon.

From this on he had only one chill, with a temperature of 104.5°, which happened on the 10th. His cough after admission became aggravated, pain in the side became worse, orthopnea supervened, and the dyspnea became gradually worse. Appetite remained poor, the patient exhibiting craving for liquids. Hepatic abscess was suspected, and the case was so diagnosed.

The idea of an exploratory puncture to confirm the diagnosis was discussed, but it was finally concluded that it could not benefit the patient, even though a satisfactory measure to the physician. The treatment was purely symptomatic and stimulating, morphine being freely given to relieve the pain, and early in the case large doses of quinine. Patient died on the morning of the 12th.

AUTOPSY.—Performed by Prof. Osler, 40 hours after death.

Abdomen. Intestines looked normal. The upper margin of the liver, right side, corresponds to the third rib; on the left side to the fifth rib.

Thorax. Slight hemorrhagic exudation in left pleura, and a few soft adhesions to the right.

Heart. Chambers contained firm, partially decolorized clots. Endocardium blood-stained, tricuspid segments a little thickened. On the mitral faces is seen a row of small firm vegitations, but no ulcers. Aortic segments healthy. Muscular tissue soft; clot on right appendix, but no globular thrombi.

Lungs. Right, crepitant throughout, except in three small areas in lower lobe, the lowermost of which is covered with a recent exudate. On section they are firm, dark in color chiefly hemorrhagic, center paler than periphery, and there is no distinct suppuration. Bronchus leading to lower lobe filled with a purulent mucus. In the left lung there are two or three of these infarcts with exudate on the surface. The main branch of the left pulmonary artery as it enters the lungs is plugged with a firm thrombus, which extends chiefly into a branch passing to the lower lobe. It is closely adherent and fills this main branch for 2½ inches.

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It also passes out two branches going to the lower part of the upper lobe. It is greyish red, softened, and in places has a puriform appearance. On the right side a larger thrombus occupies the bifurcation of the branches of the pulmonary artery going to the lower lobe. It is firmer than that in the left artery, not so much softened, and the neighboring lung tissue is much engorged.

Spleen. A little large, brownish red, no infarct.

Stomach. Pigmented at the pylorus. Post mortem softening at the cardia. The bile ducts are pervious. Structures in gastrohepatic omentum are normal, except that the hepatic artery is of unusually large size. The right kidney and suprarenal capsule are closely adherent to liver. The diaphragm on the right side is closely adherent by recent lymph.

Liver. Right lobe very much enlarged, is opaque. At least half of right lobe is fluctuating; it has swollen aspect, and projects forward to the right. It is very intimately adherent to the right kidney, which is flattened. On laying open the inferior vena cava, about the orifices of hepatic veins coming from the right lobe, there are seen vegetations, and adherent thrombi, and for a radius of ¼ inch, the endothelium is eroded. Slight pressure on the abscess squeezes a dirty pus with clots from these hepatic veins. On further pressure a creamy pus exudes.

Transverse section of the liver reveals an enormous abscess occupying ½ of the right lobe. Toward its right border its wall is chiefly made up of thickened capsule and there is here a well defined lining membrane. Large intestine and rectum normal, no ulceration or thickening in the colon.

In very commencement of colon are to be seen cicatrices of four ulcers—in cecum one. These are entirely healed.

No ulceration in the appendix, which looked normal.

Brain and middle ear were not examined.

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J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, MAY 12, 1888.

THE MEDICAL PROFESSION AND MAYOR FRANCIS.

We present herewith a report of the action of the St. Louis Medical Society in a matter which was deemed to be of vital import to the medical profession and the public of St. Louis. In April, 1887 the following resolutions were unanimously adopted:

RESOLUTIONS OFFERED BY J. M. SCOTT, M.D.

"*Resolved*, that the St. Louis Medical Society, believing that the Hon. D. R. Francis, in administering the duties of the office of mayor of the city of St. Louis, desires to be controlled solely by a wise sense of the public interest, and recognizing the intimate relations necessarily existing between the medical profession and matters pertaining to the administration of the health department of the city, respectfully represent that in our opinion preservation of public health, the prevention of contagious diseases, the control of epidemics, the regulation of quarantine and the management of our hospitals can with the highest wisdom be assigned to none other than a medical man. With a view of conveying to his honor our sense of a suitable person to whom the administration of the duties of the health commissioner could be wisely committed to, etc.

Unanimously adopted.

And the following committee was appointed to wait upon his honor, the mayor, and present the same:

Committee, Drs. Pollak, J. M. Scott, R. J.

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lill, H. Mooney, A. H. Meisenbach, I. N. ove, J. C. Mulhall, Frank R. Fry, A. B. haw, Hugo Auler, G. Hurt, B. M. Hypes, N. luhman, H. F. Hendricks, W. G. Moore, A. I. Ohmann Dumesnil.

The committee waited upon Mayor Fran- is the following Monday, and were received ith due courtesy—each member reinforc- ig the resolutions by an individual expres- ion of views.

The mayor responded in effect that he was rofoundly impressed with the position taken y the committee and the medical profession, as determined to carefully consider the sub- ect and act in accordance with what he be- ieved to the best interests of the city.

At the end of one week's time Mayor Fran- is, in spite of the enormous pressure against uch course from many directions, appointed Dr. Dudley health commissioner, thereby manifesting a deference to the desires of the medical profession, most agreeable to it.

At one of the largest meetings ever held in the hall of the medical society, called for the purpose of giving expression to their feelings, a committee was appointed to draw up reso- utions expressive of the sentiments of the ociety.

The following report of the committee was unanimously adopted:

WHEREAS, At the time of the reorganiza- tion of the city government of St. Louis and he adoption of the new charter ten years go, the entire health department, including verything pertaining to public sanitation, ospitals, dispensaries and asylums, was as- igned to the care of an officer designated as health commissioner.

The name, the duties, the character of the office indicated clearly the propriety and ne- cessity of its being filled by a physician.

All that we have of sanitary science today the world over is the product of the brain of the medical profession, based upon inherent instincts which have fostered from the be- ginning a devotion to humanity, a disregard of the narrow and selfish interests of indi- vidual or guild, evidences of which have ap- peared invariably during times of peril and pestilence, and are expressed in the organic law which controls medical men in their re- lations to each other and the public, and which was foreshadowed by Hypocrates in the earliest times, and later partly made man- ifest by mandatory injunctions against the se- curement of patents for discoveries, made an ordinance declaring the prompt contribution and diffusion of individual information, and intelligence for the public good.

Notwithstanding these and the just claims attaching to the medical profession there- from, and the repeated presentation up to the present time has been accorded.

Realizing that our opportunity had come for presenting this question in a manner to receive favorable consideration in that we had a mayor in power who represented the pushing, practical, earnest, and best part of our new St. Louis, and whose dominant pur- pose was the promotion of public interests, this society at the proper time took action and respectfully presented to him a crystal- lized expression of the almost unanimous wishes of the profession.

In consideration of the fact that an affirm- ative response has followed our action, therefore,

Resolved by the St. Louis Medical Society, that we reaffirm with a grateful sense of as- surance our convictions that the Hon. D. R. Francis, in administering the office of mayor of the city of St. Louis, is animated in a pre- eminent degree by a wise and intelligent sense of the public good.

Resolved, that we hereby convey to him our feelings of profound appreciation and obliga- tion for the recognition that has been ac- corded the profession and this society, in the selection of Dr. Dudley for the office of health commissioner.

Resolved, that in recognizing the justice, fairness and right of declaration of princi- ples presented to him by us, and in departing from the precedent established, he has mani- fested such an intelligent conception of the sanitary interests of this city, as to secure from us as physicians (servitors of the public health) a measure of appreciation in excess

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of every claim of political allegiance.

Resolved, that these sentiments be transcribed upon the records of this society, and the president be empowered to appoint a committee of fifteen to call upon his honor, the mayor, and present a properly certified copy of the same.

Signed, Hugo Auler, E. H. Gregory, Y. H. Bond, F. J. Lutz and I. N. Love, committee.

Adopted May 7, 1888.

The following committee was appointed to call upon the mayor and present resolutions May 14, 1888:

Drs. E. H. Gregory, Y. H. Bond, Wm. M. McPheeters, I. N. Love, W. Coles, F. J. Lutz, F. L. James, Hugo Auler, J. P. Bryson, H. Hickman, T. L. Papin, R. J. Hill, T. A. Martin, F. D. Mooney, N. Guhman, S. Pollak.

Specialism Again.

There is nothing new under the sun, and yet there is enough for us to learn, since no one knows all that is old. That which is trite to one may be entirely new to another. For instance we met a man who had not heard it said that specialists were becoming so numerous that the general practitioner is asking: "Will there be anything left for us to do?"

Dr. Dewey said, in a paper which he read before the Missouri State Medical Society, "All the desirable fields of work have been taken by the specialists." Such an impression is calculated to create a feeling of antagonism between the general practitioners and the specialists, and it is greatly to the interest of all concerned that they should work harmoniously together.

No one will attempt to refute the fact that many of the greatest advances in medical science have been made by men who have devoted attention to special lines of work. There is a limit to the amount of knowledge that may be acquired in a given time, and it necessarily follows that if a man devote his entire time to the study of a subject, he will know more about it than another man of equal ability who devotes a part of his time to other things. It does not follow, however, that the former—the specialist—is better qualified than the latter—the general practitioner—to treat all diseases of which the former has made a study. The facts concerning the diagnosis and treatment of many diseases that are treated by specialists are equally well known by the general physician, and the latter has as much right as the former to treat all such cases. Many physicians feel embarrassed in referring patients whom they have treated unsuccessfully for a time, to specialists, but this should not be so. Specialists themselves cannot always tell what effect their treatment will have on the disease: they have to change their treatment sometimes. Each physician should adopt Davy Crockett's advice, "Be sure you are right, then go ahead. However it is necessary to emphasize the "be sure," as we are in honor bound to give our patients the best possible chance for recovery.

Our *confrere* Dr. I. N. Love said in an article in a recent number of the Review, "The time is coming when all specialists will be general practitioners and *vice versa*, with the exception perhaps of one or two specialties; ophthalmology and laryngology. That is to say each physician will add to his general reading some special line of investigation. This would certainly by a happy solution of this much discussed question. Most specialists treat what are termed local diseases, but so intimately connected are local and constitutional troubles that no one is competent to treat the former who has no knowledge of the latter, (this has been said before).

The editor of the *Medical Science*, Toronto, in writing under the caption of "The General Practitioner and Eye Diseases" says: "If there be any one thing which is most likely to give those who, nowadays, in so many departments are calling themselves specialists, prescriptive rights to the title and to arrogate to themselves a professional superiority (owing to the fact that they may know one thing well) it is a general neglect of some of those at first sight minor departments, but which in the case of eye diseases have an importance which has been too long either ignored or

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unvalued." He thinks there would be no need for specialists even in ophthalmology if medical schools would place their standard for graduation high enough and make their course of introduction thorough enough.

Specialism is the result of a demand. No one can learn all the facts that are known in medicine; neither can he retain all that he learns. Skill in the manipulation of instruments and in diagnosis is the result of extended practice. The general practitioner does not see enough of the rarer forms of disease to keep fresh in his mind the various forms that these diseases may assume. In order that he may do justice to his patients he must keep himself posted in the literature of the day on the diseases which he treats. If he attempts to do this he will have no time for practice.

There are certain things which every physician should know in regard to diseases of the eye. He should be able to tell whether the tension of the eye-ball be greater or less than normal. If he is able to do this, he can use atropia intelligently and can tell an iritis from a conjunctivitis. He should have a Snellen's test card and know how to test a patient's distant vision; a newspaper will answer for near. He should have a two-inch lens and know how to look for foreign bodies on the cornea, that he may not treat such a case for a simple catarrh. If the inflammation be confined to one eye the probabilities are, it is due to a foreign body.

My observation has seen that ophthalmoscopes are worth but little to the general practitioner.

Charity Practice.

It is but justice that every man should receive remuneration for the work he does. I do not understand why doctors should be asked to give away their time and knowledge for naught. He is expected to contribute to this and that charity just as liberally as any one else, and in addition to treat every patient who may choose to call for his service. If the patient has no money, then the doctor is expected to treat him "for sweet charity's sake."

I learn from physicians who are located in towns in various parts of the state that they are expected to treat the "county poor" of their respective sections without any remuneration whatever.

Now it certainly seems to me that this is a manifest injustice to the medical man. Why should he be called upon to furnish the county's poor from his store of knowledge any more than the miller should be asked to furnish from his store of flour?

Physicians have rights in these matters, and they should insist on having their rights respected.

I take it that doctors are to some degree responsible for this condition of affairs, they are inclined to allow the public to undervalue their services. The progressive physician understands that every case of disease is interesting to him, and he is likely by the interest which he manifests, to produce the impression on the laity that he is partly paid by having the privilege of treating certain cases.

I believe that if the better element of the profession will act as a unit in this matter, and demand their just dues for their time and knowledge, the public will respect and appreciate them more. Let the city, town and country doctor unite in trying to put an end to this injustice, and it will be done.

J. R. Lemen.

Phthisis a Disease of the Night.

Dr. R. J. Shephard writing in the *Brit. Med. Jour.*, says that near fifty cases of phthisis die under his care annually. He gives as his opinion that irritation is the cause of phthisis; that there are various degrees of susceptibility, and it is important to note that what will irritate one pair of lungs will not necessarily irritate another. He says that hereditary taint, diathesis, and the general surroundings of the patient and even the dread bacillus have much to do with the form and progress of the disease, but aside

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from these there must be irritation. The source of this irritation in the vast majority of cases is simply cold air breathed at night. Not that cold air of itself is an irritant, but the change from breathing warm air by day to cold air by night does the mischief.

Dr. Shepherd believes he has discovered an important factor in the etiology of this disease, but we fail to see that he has found anything new. Everyone knows that a reduction of vital force from any cause whatever aids the development of phthisis in persons predisposed to the disease. Grave disturbances of the circulation such as may be produced by a rapid change of temperature of the air, often serves as the exciting cause, whether it occurs by day or by night. We think phthisis is as much a disease of the day as of the night.

Phosphoric Acid in the Treatment of Tubercular Enlargements.

Dr. Grossick (*Lon. Med. Rec.*) injects a small syringeful of a ten per cent solution of pure phosphoric acid in distilled water into tuberculous glands of the neck, if there is no fluctuation. This reduces the glands in size within twenty-four hours. If after the injection the gland suppurates, the suppuration is limited to the gland tissue. He also uses this injection for tuberculous affections of the knee-joint. In one case he injected eight syringefuls as deeply as possible into the joint, dividing the amount between sixteen different points. Lint wet with the same solution was wrapped around the joint and changed every eight hours. The patient began to improve on the fifth day, and on the thirtieth day the swelling of the joint had been reduced by one-half, and passive movements of the joint were normal.

In another case of tuberculous swelling of the hand with a sinus discharging pus and a cheesy-looking substance, the patient was made to hold his hand for two hours twice a day in the solution of phosphoric acid, and lint wet with the solution applied the rest of the time. After forty-eight days of treatment the swelling of the hand was greatly reduced, the sinus closed and the movements of the joints free and painless.

EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

At the meeting of the St. Louis medical society Saturday night, the following delegates were selected to attend the meeting this week of the A. M. A., at Cincinnatti. Drs. H. H. Mudd, Y. H. Bond, A. H. Meisenbach, Frank R. Fry, A. H. Ohmann-Dusmenil, Wm. Porter, Glasgow, N. Guhman, E. W. Fiegenbaum, of Edwardsville, Ills. F. M. Rumbold, H. C. Dalton, R. M. King, R. L. Thomson, I. N. Love, Frank J. Lutz, W. A. McCandless, Spencer Graves, W. G. Moore, J.C. Mulhall, J. M. Scott, Wm. Dickinson, E. H. Gregory, Gratz Moses.

The outlook is promising for a large meeting.

* * *

Sir Morell Mackenzie is in constant service to the emperor of Germany, receiving two hundred and fifty dollars per day. The statement is made by a local physician of this city now on the other side, that the royal patient will probably not live two months.

* * *

The criticisms being passed upon the habit of some journals of sandwiching advertising pages in between reading pages is well timed. The journal which permits such offenses commits an error against good taste, and the advertiser cannot gain by such obtrusiveness.

* * *

The *Medical Press* says, that it is evident that if five grain pellets of chlorate of potash be thoughtlessly sucked at intervals throughout the day a very considerable and certainly injurious quantity will ultimately be absorbed.

In children it gives rise to cerebral symptoms, especially "night terrors" with more or less intense prostration. It would be well if the public were cautioned now and then that they can not with impunity assimilate quantities of a salt which in anything like large doses is an unequivacal poison.

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SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, April 21, 1888, the president, YOUNG H. BOND, M. D., in the chair. J. B. PRICHARD, Secretary.

DR. H. HODGEN presented a patient and said: I do not know that there is anything unique in the cases which I am about to report. I was unable to satisfy myself fully as to the cause of the conditions which I found. I present them to the society hoping they may be of interest. The first case was that of a boiler-maker, a man, fifty-four years of age. He was exposed to extremes of heat and cold; that is, he was frequently obliged to work in boilers from whence the fire had shortly been drawn, and then go out into the cold air. He complained of pain in the shoulder, at the acromial process; he next noticed that his right arm arm became weak. In his business he is compelled to lie on his back and strike up; and he began to notice that his arm became tired very quickly and he could work only for a short time. He finally got so bad that he could not raise his arm to a right angle. He was a man who went on periodic sprees. He consulted Dr. Mudd, who referred him to me. At that time he was suffering intense pain all the while, and was unable to raise his arm at all. I diagnosed paralysis of the trapezius and deltoid and serratus muscles of the right side. The deformity in that case was the same as in the case which I present now.

This young gentleman is nineteen years of age and is a clerk in the railroad yards, using his right hand for writing and for turning the leaves of the book. He has a great deal of turning of leaves to do. He first noticed an unusual prominence of the scapula on the right side; shortly after that he began to suffer pain at the acromial process; and later he noticed that his arm and wrist tired very readily. He called on Dr. Mudd and was also referred to me, about two months ago. I found at that time that the scapula stood out almost at right angles to the back. He was unable to hold his arm out in front of his body for any length of time; he could hold up his arm vertically holding a four or five pound weight for a short time, although it soon became tired. I used the same apparatus for supporting the scapula in both of these cases, which served to give some relief from the tired feeling. He now works through the day with no discomfort, at least he does not get so tired; occasionally he has pain about the acromial process. He is healthy, does not drink; has never received any injury, and the family history in both of these cases is good. You notice how the scapula stands out now, although it is not nearly so prominent as it was when i first saw him. Dr. Fry saw both of these cases with me and I will ask him to state the result of his electrical examination.

DR. FRY.—We found in this case, more apparent than in the other mentioned by the doctor, atrophy and degeneration of some of the muscles, with evidence especially of degeneration of the long thoracic nerve. The atrophy of the serratus magnus is very apparent. The serrations are much plainer on the left than on the right side. I examined the patient yesterday with the permission of Dr. Hodgen, and while the reaction of the serratus magnus is better than it was, it is not yet normal; that is, the closure contraction is just about the same with the cathode as it was when I examined the patient before, while that of the anode is markedly smaller than it was, showing that there is some tendency already to a regeneration of the nerve. The trouble is probably a neuritis; the long thoracic being especially affected.

DR. HODGEN.—The treatment in this case has been the use of the galvanic current—the descending current for the first four or five weeks; during the last two weeks I have been using the Faradic current.

DR. HERMANN.—This case is a very pretty example of paralysis of the serratus magnus. The wing-like standing out of the scapula when the patient holds his arms horizontally forward is very characteristic. As far as I can see, the serratus magnus is the only mus-

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cle that is paralyzed just now. Paralysis of this muscle is not very rare. It occurs comparatively frequently, and occasionally in connection with progressive muscular atrophy; but I think this is a case of isolated paralysis of the muscle, due, as Dr.Fry stated, to paralysis of the long thoracic nerve, and I think a good prognosis can be made in the case.

Dr. Fry.—Dr. Hodgen's apparatus has been very effectual in both of these cases he reported. He is too modest to say so. I hardly believed that he could have attained such a result as he has with any kind of apparatus. It has held the scapula firmly, making the member very serviceable. He had a good deal of difficulty in getting it fixed in place, but after he succeeded in doing so, it proved very satisfactory.

Dr. Wm. Johnston.—I would like to ask Dr. Fry what muscle if paralyzed would allow the scapula to be pulled out horizontally from the spinal column.

Dr. Fry.—The serratus magnus is inserted on the ventral surface of the scapula along the vertebral border, its origin being from the ribs. When it contracts it holds the scapula to the thorax. This is the only muscle, as Dr. Hermann says, which now shows any evidences of paralysis. It is supplied by the external respiratory nerve of Bell as it is sometimes called—or the long thoracic, also called the posterior thoracic nerve.

Dr. Lutz.—Has this man ever received any injury?

Dr. Hodgen.—No, sir; there is no history of injury in either of the cases.

Dr. Pollak.—I would like to ask Dr. Hodgen what that apparatus is made of and what is the philosophy of its action?

Dr. Hodgen.—The material is leather, as you see, and this is a piece of sole leather on the back; the splint as we may call it is of gutta-percha. The piece of gutta-percha I used at first was a quarter of an inch thick, this is only about an eighth of an inch thick. I wanted something to catch the scapula and hold it against the ribs retaining the posterior iuferior angle in its proper place. I had the young man lie upon my sofa and put his arms into the position which threw the scapula back, and I surrounded the margin with the stencil board which I use in taking outlines; then I poured in cream plaster—equal parts of plaster and water, and thus obtained one mold. I then greased the surface of this and put in the stencil board again and got the other mold; then I took gutta-percha and put it in warm water until it became heated, put it between the mold sand placed then in a clamp, pouring cold water on it. I then had Mr. Aloe make me the should braces with the straps as you see. After making the first mold I scraped out a little trench with my finger, for the posterior inferior angle of the scapula. The brace has been of great benefit to the patient in relieving him of the sense of weariness. I believed the trouble to be a neuritis, bnt as to the cause of the latter I am not decided.

Dr. F. J. Lutz presented two monstrosities, and said: the specimens which I have are perhaps curiosities only, but they represent types of deformities which are comparatively rare. I will state that they were presented to me by Dr. O. A. Williams, of Versailles, Morgan County, Mo., and I will add that they were exhibited at the recent meeting of the State Medical Association. The first specimen is one which might perhaps come under the head of acephalic deformities to a limited extent only, because the parietal and occipital bones are absent. The face as you will see is perfectly formed, and a portion of the frontal bone, perhaps as high as the supra-orbital ridge are present. Then posteriorly there is a bifid spine of an exaggerated degree, there being an absence of the transverse processes of the vertebræ and spinous processes. and the larger portion of the cord is absent. I have not multilated the specimen, as I thought it would be well to preserve it. I presume that what is felt and what appears here as the base of the skull is that portion of it corresponding perhaps to the anterior portion of the occipital bone and middle and anterior fossæ of the brain.

The other specimen is one which was obtained a month or six weeks ago by the doc-

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or. He delivered a woman of twins; one being a perfect, healthy child, and this being ie other. Now it is difficult to know where) begin to describe this specimen. There are pon each foot only two toes, the great and econd toes. The bones of the leg and thigh re well formed, as is also the pelvis. Then 'e come to a sac which might appear to be ie urinary bladder, but the contents feel ke the testicle, and there is a distinct cord iat runs up into the abdomen. That portion which corresponds to the abdomen and iorax is entirely absent so far as any particular shape is concerned,and the head is simply iarked by a place which contains a few airs. Of course I have not examined the ontents of this specimen because I feel that can not benefit myself or others much by nutilating it in that way.

Dr. Hulbert.—I would hardly class the first specimen in the category of acephalic but as anencephalic. There is evidence there of nerve tissue and part of the spinal cord. I think that is the distinction that is made between acephalic and anencephalic specimens. About five or six months ago I exhibited a specimen which was very similar to this, except that in my case there had been an attempt made to form the parietal and temporal bones, only the anterior part of the occipital bone was present.

Dr. Young H. Bond.—It will now be in order for the gentlemen who attended the State Medical Association to give their experiences; and we should be glad to hear from the ex-President of the Association, Dr. Lutz.

Dr. Lutz.—I was very much gratified to see so many physicians from St.Louis present at the meeting. I think there were some thirty-five physicians from this city in attendance, and a great many of them presented communications to the association. The attendance was unparalleled in the history of the association. There were present one hundred more than had ever before been registered, reaching two hundred and sixty-five or two hundred and seventy, and the first evening there were two hundred doctors in attendance; quite frequently during the day the gentlemen on the stage who were interested in the matter found as many as 150 or 200 doctors listening to the reading of the papers. The time was all taken up in scientific communications. There was no time lost with extraordinary business. Very few matters came before the association which required discussion other than scientific, business,and in that respect it was unlike many of the preceding meetings where much time has been taken up in discussing such matters. I think forty papers were read. Formerly there was a dearth of scientific communications, but this time I think there were too many; there was no time left for discussion. Perhaps the only paper which elicited much discussion, and which to me was the most interesting paper of all, was that of Dr. Dalton on gun-shot wound of the abdomen, in which he reported a very rare and interesting case, I suppose there is no similar case to be found in the literature on that subject; a case in which a man was shot through both walls of the abdomen, anterior and posterior and through the liver, in which a laparotomy was performed and recovery followed.

I will say that so far as the social features of Kansas City are concerned, the physicians of Kansas City did themselves honor; they literally spread themselves, if I may use such an expression; they did everything in their power to make everybody feel at home. I believe that in future the state association will improve.

The Association took some action in regard to the State Board of Health which is in a very crippled condition. The opinion was general that if the profession would give the board its support, the next legislature would provide funds wherewith to carry on proper sanitation.

Dr. Mudd.—I enjoyed the meeting at Kansas City as I do all medical gatherings. It brings us in contact with many friends and furnishes an opportunity to make some new ones. I was gratified with the growth and development of the association. The papers were all good, I think. The one in which I was chiefly interested was that of Dr. Carson

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on Colotomy, in which the doctor discussed the question of inguinal and lumbar colotomy, and decided, I think justly, in favor of inguinal colotomy, because there we have more certain access to the bowel, more liberty in the choice of a position for opening it, with not much increased danger in the opening, while it is at a point where it is more easily controlled, and we are able to explore the abdominal cavity somewhat more fully. It has occurred to me, though, that while the operation will always have a certain field of usefulness, and that field will be much better developed since the inguinal colotomy has become somewhat more favorably looked upon—no sooner does one operation become perfected than we have another to supplant it. I think Bodenhamer has practiced a method of reaching the rectum that will take from colotomy many of its cases. One of the favorite sites for an epithelial growth, for cancer, is that portion of the rectum between the point where it becomes placed on the sacrum and the anus, and this region is where Bodenhamer operates. He makes an incision along the median line, resects and lifts out the bowel, taking out the section.

Dr. Meisenbach.—The gentlemen who have preceded me have covered the ground so fully that I have very little to add. I think the physicians of Kansas City did everything possible to make our stay there pleasant, and they did themselves credit for the manner in which they entertained so large a body of men. The general expression was that never in the history of the state association was there a meeting that was so well managed, where the reins were so thoroughly drawn, and as few enemies made by strict rulings as at Kansas City. There was a great deal of work done, no useless time lost; there was no wrangling or personalities; everything went off smoothly and nicely. Considerable enthusiasm was manifested in Dr. Dalton's paper, and also in a paper read by Dr. Matthews, of Carthage.

Dr. Lemen.—I think the ground has been pretty well covered, but there is one point I would like to mention. A number of physicians from the country spoke to me about assisting them in having a bill passed by the legislature to remunerate them for treating the poor in their counties. In the large cities the paupers are taken care of by the public, but in the country districts no such provision is made, and the physicians necessarily do a good deal of work for which they receive no pay. I think we should use our influence to have a bill passed by which they will be relieved from this burden.

Dr. Edward Borck.—I am sure we would all like to hear from our president.

Dr. Young H. Bond.—I was disposed to let the other members of the society talk, but there were two features of the association that impressed me a great deal. One was the intelligence of the body. It impesserd me as being an intelligent body of men; and another feature with which I was most agreeably impressed was the regard with which they seemed to hold the St. Louis Medical society. They seemed to hold us in profound respect, and they were versed in the proceedings of the society. They knew the position held by the different members upon the various medical questions of the day, and it led me to a sense of the fact that we should appreciate the advantages we possess more than we do. These gentlemen are permitted to gather only once in two or three weeks or months, and when they do come together they have no such opportunities for observation and for imparting information to each other as the members of the St. Louis Medical Society possess. This society offers advantages to its members which are possessed by no other society in the state.

Dr. Hurt.—I was in attendance on the meeting of the association for one day only. I must say, however, that I was favorably impressed with what I saw and heard at the meeting. There was evidence of an earnest enthusiasm that augurs favorably for the future of the Missouri State Medical Association. I was quite proud of the St. Louis delegation, its numerical strength and its intellectual ability. It seemed to be quite flat-

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tering to St. Louis and especially to the St. Louis Medical Society. I heard most of the papers that were read during the day of my attendance. They seemed to be abreast of the modern literature and progress of the times, and I think they will be a credit to their authors and to Missouri when our transactions are sent abroad. I believe most of you are aware that I always felt a little opposed to the idea of irresponsible membership; a temporary membership; the reducing of our association from the position of a permanent incorporated organization to something upon a level with a mere convention, and I think the time will come when we will tire of this, and that we will some day have a permanent membership, whereby a man can feel some responsibility to the association and derive some strength from the consciousness of a common fellowship, and while there is a great deal of advantage, perhaps to be derived from the custom of a migratory method of meeting, the custom of adjourning from one place to another, I feel more and more inclined to the idea of a permanent location for the meetings of the association.

Dr. Love.—I heard the majority of the papers. One paper that struck me very forcibly was read by one of our most modest and able St. Louis gentlemen, Dr. Charles Barck. His paper was short and presented a practical point, a point which was entirely new, so far as I have heard. It was the pupil in its relation to chloroform narcosis, as a means of knowing when we are reaching the point at which the anesthetic should be stopped. He called attention to the fact that the upper portion of the cerebral centers—the intellectual centers were first affected by chloroform. The doctor suggested that the center which which presides over the pupil is some considerable degree higher up, being midway, I think, between the respiratory and the intellectual centers, and the point he made was that when the chloroform affected one the other was affected also and the effect on the pupil acts as a danger signal. He has tried it in four cases and found it valuable. When there is dilatation of the pupil and a failure to respond to light, it is time to diminish the chloroform and watch the patient.

CORRESPONDENCE.

NEW YORK LETTER.

New York, May 1, '88.

Editor Review.—Since my last letter two of our prominent men, both oculists, have died, Drs. Agnew and Loring. The position of the former was a unique one. He was most emphatically a citizen. More than any other man in our professional ranks had he been identified with public movements. He was one of the organizers of the Union League club, and of the United States Sanitary Commission. Commencing his professional career in 1852 he rapidly rose to eminence, and at the time of his death was connected with societies and institutions almost innumerable. With the clinical chair of his specialty in the College of Physicians and Surgeons, and with the establishment of the Manhattan Eye and Ear Hospital his name will be ever closely connected.

No less was he esteemed in social and literary circles. Of great eminence as a physician, he was yet one of the most approachable of men. He was modest and retiring in his disposition. His Christian manhood was of the highest type. He was sincere and free from all pretence, devout, and yet not intolerant.

He had just been summoned to attend in consultation the late Senator Conkling when his own illness began with perityphlitis, succeeded by perforation of the vermiform and peritoneal abscess. An operation brought some relief, but did not prevent the onset of general peritonitis and a fatal result.

Dr. Loring had already been suggested as the successor of Dr. Agnew at the College of Physicians and Surgeons, when his own sudden demise occurred. He was not so widely known as Dr. Agnew, as he held no professorship, and had made his reputation solely by private work. This, however, had brought him in a large and lucrative practice. He

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had commenced an exhaustive work on ophthalmoscopy, the first volume of which was issued last year.

A curious state of affairs was recently revealed in a law suit for the dissolution of the corporation known as the Third Order of St. Francis. This sisterhood opened some sixteen years ago a hospital known as St. Elizabeth's. It had its regular medical staff, but a patient could go there and engage his accommodations and attendance and then be attended by any physician or surgeon in the city, according to his preference. The institution had about fifty beds, and its career was a prosperous one until about two years ago. At that time a priest who seemed to have in some way an authority over the sisterhood, declared his intention of turning the hospital into a religious organization, and placed other sisters in charge. This procedure naturally excited the indignation of the friends of the institution who had labored so earnestly in its behalf, and they withdrew their support. From this time prosperity vanished. The old members of the sisterhood were allowed to remain if they chose, but had no voice in the management. This interdict led to a lack of patronage, and on account of it it had been impossible to obtain Catholic nurses. The hospital now has only nine patients, and its enemies seem determined to make it close its doors.

Some recent statistics furnished by Dr. Roger S. Tracy, registrar of vital statistics, are very interesting as bearing upon certain questions of public health. Our annual death rate is about 26 per thousand, while for London it is only 20 per thousand. London exceeds in the death rate from typhus, pertussis, cancer, rheumatism, circulatory diseases and the exanthematous fevers; New York in phthisis, kidney and diarrheal diseases, diphtheria and croup. The reasons for this latter excess as against New York are ascribed to our very trying climatic conditions and to excessive overcrowding. Not even in the worst districts of London is the overcrowding so great as in some of our down town, east side tenement house region. For these two reasons it is very improbable that the death rate will ever be as low here as it is in London.

Several deaths have recently resulted from accidental contact with electric wires, and it seems as if the time had come for the public to take some steps in the matter. Legal redress is rendered possible from the fact that the so called Electrical Sub-way Commission has already provided underground conduits in which the companies may place their wires if they will. Thus far they have persistently refused to avail themselves of the privilege. One of the commissioners has declared that the "air is full of death." The insulation of the wires is constantly wearing off. He counsels that the Department of Public Works should cut down a few of the poles belonging to each of the companies to show that it means business. A coroner's jury is deliberating over the last fatal case, and there seems little doubt but that the company will be censured.

At the last meeting of the county medical society Dr. Wm. C. Jarvis read a paper on the "Indications for Surgical Treatment of the Deflected Nasal Septum," basing his remarks on an analysis of one hundred cases. Of these deflections 80 were to the right and purely cartilaginous, and 40 to the left and of the same nature. Nasal stenosis was the principal indication for operative interference. Of complicating conditions calling for surgical procedure the most important was turbinated hypertrophy. Out of the hundred cases 29 presented ear symptoms. In 94 there was hypertrophic rhinitis.

The chief danger from the nasal stenosis was the liability to cause irritation and inflammation of the lower air passages. The obstruction might act like a dam and so cause accumulation of the secretions. J.E.W.

PARIS LETTER.

PARIS, April 23, 1888.

The Congrés Francais de Chirurgie, discussed on Tuesday, March 13, the treatment of wounds by fire-arms in the visceral cavities. Most of the communications related to

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rounds in the abdomen. The army surgeons alled attention to the fact that the extent nd gravity of the wound vary according to hether it was caused by cannon, musket or evolver. M. Chauvel maintained that it is ecessary to intervene in all cases of wounds y fire-arms, on account of the dangers of the xtravasation of fecal matter into the abdo- en, and of septic peritonitis.

M. Reclus replied that intestinal perfora- ons are not nearly so grave as M. Chauvel apposes, and that laparotomy is not so sim- ly and infallibly efficacious, as M. Chauvel dvances. M. Reclus has observed, in experi- ents made on dogs, a great many perfora- ons which were cured without the least in- stinal trouble. He concludes that men have een cured also, in many cases where perfor- tion was indicated by hematemesis and elena.

The experiments with dogs were far from convincing MM. Chauvel and Trélat. M. Chauvel pointed out that no comparison could e drawn between the dogs which were purged nd gorged with opium before being wounded nd soldiers whose stomach and intestines ere full.

M. Trélat remarked that the intestine and orm of the stomach are quite different in a uman being and a dog. Besides, after peri- onitis has declared itself, there is no hope of perating successfully. Further, operation ust be done without loss of time in cases of emorrhage, extravasation of fecal matter, ndicated by meteorism immediately after the round.

M. Reclus considered the multiplicity of esions as a contra-indication to operation, ecause if the stomach be opened, a long ime must be spent in examination, and in ef- ecting sutures which may eventually cause tricture of the intestine.

M. Labbé cited a case in which there were en perforations made by a revolver, and certain ymptoms indicating internal hemorrhage, the bdomen was opened, and the lesions were iscovered. The patient died during the ight of the operation, but the case proves hat the diagnostic of perforation is not al- ways easy; as in spite of the extravasation of blood into the abdomen, there were neither melena nor hematemesis.

M. Verchére recomended the opening of the stomach in cases of poisoning from the extravasation of the intestinal gas into the stomach. The symptoms are, rapid pulse, weakness of the patient, with temperature normal or even lowered. In such cases operation must be done at once, contrary to the usual practice, contractions of the intestine must be excited, to counteract the pseudo-strangulation caused by traumatic intestinal paralysis, antiseptic measures, such as ingestion of naphthol, injections, etc., must be had recourse to.

M. Delorme made a comparison between the facilities with which the civil-surgeon is surrounded, and the unfavorable circumstances which an army-surgeon performs operations. He remarked that in time of war operation in cases of wounded intestine is impossible; in the ambulances of first rank there is no room, in the second rank when the patient arrives it is too late.

M. Chavasse mentioned wounds of the liver, remarking that the surgeon should confine himself to antiseptic plugging.

At a meeting of the Societe de Medicine Practique et d'Hygiene Professionelle, M. Bechmann,, chief manager of the water supply of Paris, announced that in 1884, some beautiful springs of pure, fresh water had been purchased by the city of Paris. Until now these springs have not been utilized, and at certain times water which is known to contain typhoid germs is distributed to the Paris inhabitants. M. Bechmann has tried to prove that the assertion made by Dr. Brouardel and other medical men that the Seine water contains poisonous principles, is unfounded. He admits that this water is not altogether innocuous, but furnishes statistics to show that during the distribution of Seine water last summer the rate of mortality from typhoid fever was less in the arrondissements to which it was distributed than in those which were supplied with water from the Vanne and Dhuys springs.

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M. Bechmann quite passed over the fact that a in convent inhabited by 300 persons, in the nineteenth arrondissement, an epidemic of typhoid fever was produced by the use of Seine water. Within ten days 132 of the inmates were attacked with toxic, septic and typhoid symptoms. M. Mosny's report on the use of pure potable water at Vienna, and the consequent diminution of typhoid fever in this city, furnishes the strongest evidence of the influence of water in propagating this and. other affections. Since the town was supplied with new water-pipes no case of cholera has been recorded in Vienna. Dysentery, which killed about 70 persons every year, has disappeared since Vienna was furnished with a supply of pure spring water in 1874. In 1877 this water was temporarily replaced by Danube water in certain quarters of the town. A terrible epidemic of typhoid fever was the consequence.

Since Vienna has been exclusively supplied with spring water, typhoid fever has almost disappeared, and a case of typhoid fever in the hospitals is a rare occurrence. M. Mosny is perfectly convinced that water is the principal agent in transmitting typhoid fever and that the only means of suppressing the affection in a town is by supplying the inhabitants with large quantities of absolutely pure water.

In replying to M. Bechmann's statements concerning the rate of mortality from typhoid fever in Paris during the time the Seine water was distributed, M. Brouardel and M. Chantemesse observed that it was only 12 or 14 days after this water was supplied that its effect could be demonstrated, and that death from typhoid fever usually occurs four or five weeks after the appearance of the affection. M. Bechmann's table of statistics records six deaths from typhoid fever during the fourth week after the Seine water was distributed; 14 deaths during the fifth and sixth week; 29 during the seventh week; 36 during the eighth week, and 44 during the thirteenth week. The mortality did not diminish as rapidly as might have been expected when spring water was substituted for Seine water, but this fact M. Brouardel attributes to the microbes deposited in the water pipes by the Seine water. He considers it essential that the government authorities should immediately take the necessary measure to utilize the springs that were purchased four years ago, and considers that the immunity of the inhabitants of Paris from typhoid fever is more necessary than the establishment of a metropolitan railway, which the government is bent upon carrying out before adopting any other measure.

M. Trelat has treated the following interesting case in his wards at the Necker Hospital:

A young man of 22 years of age came to the hospital with a tumor of the thigh, which in one year's time had become enormous. The subject was too young and the progress of the malady too rapid for it to be a fibroma; it was also too hard to be a lipoma, or rather fibro-lipoma: it must therefore be a malignant tumor. It was too well defined and regular in form to be a carcinoma, in which case the patient would besides have shown well characterized signs of cachexia and his general state would have suffered, which was not the case. The tumor was too hard for it to be a myxoma. There remained only the hypothesis of a sarcoma, or rather of a fibro sarcoma. This agrees with the consistonce of the tumor, with its well defined borders distinct from the neighboring part, and particularly with the rapidity of its evolution, and also with the age of the subject. In presence of a tumor that within one year had attained the size of a child's head, surgical intervention was urgent and it is to be regretted that the patient did not demand it earlier. Dr. Trelat describes the mode of operation he decided to adopt longitudinal incision of the integuments and aponeuroses from one pole to the other of the tumor,and excision by dissection. Should there be deep seated adherences engaging the large femoral vessels, which was to be feared and would be a serious source of danger, without a moment's delay recourse must be had to amputation.

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he operation was effected as above indica-
d and with success, the dreaded adherences
rtunately did not exist, and the tumor was
tracted without much difficulty although
e operation was rather delicate and tedious
account of the precautions it was necessary
take in the deep parts. The mass extirpa-
d weighed upwards of 1310 grammes. The
stological examination showed that its
pect was not everywhere uniform, it was
lpous, encephaloid, particularly near the
rface, the center was fibrous. Preparations
the encephaloid parts showed a collection of
all round cellules, traversed by numerous
ssels with embryonal walls, it was there-
re an undoubted globo-cellular sarcoma.
ections of the central fibrous portion, should
siform elements, forming bundles more or
ss thick crossing each other, in these parts
e tumor presented the characters of a fascic-
lated sarcoma. In some isolated spots of
his fibrous tissue there appeared a tendency
ossification. On the whole it was there-
re a sarcoma, partly, globo cellular and
rtly fasciculated, with here and there ten-
ency to ossification.

The cicatrization, although at first giving
use for some anxiety, was ultimately com-
lete, and hopes were entertained of a cure.
nfortunately within less than a year there
as a relapse accompanied by general symp-
ms to which the young man succumbed.

Tedeschi advocates the following mixture
the best substitute for cow's milk, in infan-
le cholera:

White of eggs - -	15	grammes.
Oil of sweet almond	35	"
Sugar of milk - -	40	"
Carbonate of soda - -	.40	"
Chloride of sodium -	.20	"
Phosphate of lime (neutral)	2.50	"
Water - - - - -	1	litre.

Made into an emulsion.

This alimentary mixture has been used in
l cases of infantile cholera; in which 44 were
ured, 3 died, the results in three cases were
ot known.

It is announced that ambulances for use in
he City of Paris itself are to be established. The idea was started by M. Nachtel. Special telephones are to connect the St. Louis Hospital with chemists and police stations in twenty-seven different quarters of Paris; an ambulance wagon is to be kept always ready to start from the St. Louis Hospital, and at a signal given by the telephone is to set off with a house surgeon to the scene of the accident. Help will thus be forthcoming in ten minutes most at least.

It is hoped that this method of giving succor will prove so effectual, that the Parisians will later provide funds for its maintenance.

ANTIFEBRIN.

North Bloomfield, Cal., April 19, '88.

A recent letter in the Review from a country doctor in Missouri, prompts me to do my duty in the same line.

Case I. October 3, 1887, M. L., male, æt. 22, a Dane, very robust. Called me in the evening. He was burning hot, restless, tongue coated, pulse 98, temperature 104.2°. He was a good deal alarmed, as his brother died two weeks before in the same house, with typhoid fever. I gave 7 grains antifebrin, to be repeated every four hours through the night, unless he became quite comfortable. In the morning I found the pulse down to 84 and temperature down to 101°. I lengthened the interval between the powders to six hours. He took 28 grains of antifebrin per diem for seven days and at no time did the temperature go above 102°. The fever ran for twenty one days. He was well fed and nursed throughout his illness. Diagnosis; bilious remittent fever. I was much pleased at the rapidity with which he regained his strength and flesh.

Case II. January 8, 1888, Mrs. Y., primipara, very robust, æt. 19. Was delivered of a stout boy four days previously under the care of a midwife; for the past twenty four hours had been suffering a good deal with neuralgic pains in region of left ovary. Examination revealed nothing. Gave 5 grains antifebrin every six hours. The pain ceased in twenty

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minutes after the first dose, and has not returned. As a precaution she took five grains a day for two or three days.

CASE III. January 23, 1888, Mrs. McI., æt. 34, married three years, has never been pregnant. General health excellent, but has suffered from neuralgic headaches for several years. The attacks come on at the appearance of the menses, and last two days. She is utterly prostrate while they last. Has consulted several physicians without getting the slightest benefit. I was called in as a sort of forlorn hope. Gave antifebrin, six grains to be repeated in an hour if needed. She took one dose, and was so much relieved that she sat up and enjoyed the evening with her friends. The pain returning about nine P. M. she took another powder, and then had a good night's rest. The next day when I called, she said: "Doctor, that medicine is worth ten times its weight in gold."

CASE IV. April 8, 1888, M. A., male, a miner, æt. 54; looks 65. Has worked in very bad air for a long time. Has old bronchial catarrh, and has suffered much from neuralgia. Is very much broken down. Dr. M. was called to him yesterday and said he could not live twenty-four hours. I found him suffering a good deal of pain in the left side of chest, and breathing with a loud rattle, but perfectly conscious. His urine is albuminous and rich in urates scanty and high colored. There was so much whistling and such loud crackling sounds in the bronchial tubes I could make no satisfactory diagnosis of the condition of the lungs. I gave immediately 8 grains antifebrin. As he is is six miles from my home I did not see him until the next day. I found him quite comfortable and very much pleased with the "powder." I have attended to his general condition as I thought proper, and have given him the antifebrin to prevent the chest pain, eight grains once in twenty-four hours. He is gaining rapidly and promises to be about soon, though I tell him he never will be *well* again.

So far I have seen no ill effects from the drug. I have had no occasion to give over eight grains at a dose, nor to continue the use of it beyond one week. I shall watch its effets carefully and be prepared for it to "kick." Hoping to add my mite to our knowledge of this promising medicine.

FRED. HUTHINS, M. D.

IN THE May number of *Woman* commences a series of remarkable articles, by Helen Campbell, on the wretched condition of the working classes of London. This series will be one of great interest, and will portray the miseries of the poverty-stricken workers of Berlin, Paris and Rome. The illustrations by Hugh Eaton and Edgar J. Taylor, are of the highest class of pictorial art. Olive Thorne Miller begins in this number her articles on Representative Woman's Clubs, the Sorosis and Meridian Clubs of New York being the subjects of the first paper.

Price $2.75 a year. Woman's Publishing Co., N. Y.

THE NEW YORK *Med. Journ.*, in speaking of the death of Dr. Edward Greely Loring, which occurred on April 23, says: "As the shock felt on the announcement of his sudden death passes off, it will be succeeded by an abiding sense of the loss that the profession and the community have sustained."

Dr. Loring's memory will be perpetuated by his writings and by his ophthalmoscope which is not likely to be superseded by a better one. The profession was anxiously awaiting the publishing of the second volume of his Text Book on "Ophthalmology."

SIR MORELL MACKENZIE and Mr. Hovell have brought an action for libel against the *Cologne Gazette* and the *Kreutz Zeitung*, for publishing an account of an alleged incident in connection with the emperor's illness on the 11 inst. These papers published sensational items of news stating that the emperor was almost throttled owing to the clumsy treatment of Drs. Mackenzie and Hovell, in placing the rectangular cannula in his throat and that Dr. Mackenzie had to send for Dr. Bergmann who was only just in time.—*Med. Record.*

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ORIGINAL ARTICLES.

FOLLICULAR CONJUNCTIVITIS.

BY R. L. THOMSON, M. D.

Read before the St. Louis Medical Society.

It is to one of the most intractable of all diseases of the eye—Follicular Conjunctivitis—that I wish to call your attention.

The term trachoma is used by the profession of this country to designate a rough condition of the conjunctiva. This roughness is due either to aggregations of round cells, beneath the epithelial layer or else to hypertrophy of the conjunctival follicles. The former of these conditions is usually spoken of as true trachoma, the latter as follicular conjunctivitis. Both conditions may exist in a single case. In the earlier stages both are contagious. Just when they cease to be so we do not know. In a case that came under my observation, a mother who had a chronic follicular conjunctivitis and a daughter who had not, had roomed together for a year, using the same wash-basin and towels; and yet the daughter had not contracted the disease. I believe the only medium of transmission of this disease from one patient to another is the conjunctival secretion. If this be true, it follows that the greater the amount of secretion the greater the danger of transmission. Physicians handle these cases with perfect security to their patients and to themselves so long as they cleanse their hands thoroughly after each examination. Children with conjunctivitis, rub their eyes with their hands and catch hold of the hands of their playmates who in turn rub their own eyes, and in this way the disease may so spread in a school as to seem almost epidemic. Long lines of children from Childrens' Homes in New York City are marched into the Eye Hospitals to be treated for this trouble.

The tendency of the disease is to run a chronic course, and when allowed to go untreated, results, in many cases, in the total destruction of vision. Under altogether favorable circumstances the disease may run a definite course and terminate in recovery without impairment of vision. Such instances must be rare. I have seen two cases in which no disease of the eyes was present, but the cicatricial tissue lining the lids, and a slight cupping of the tarsal cartilages indicated that each of these patients had suffered from a protracted case of the disease. They stated that no application whatever had been made to their eyes. They lived in the country and were robust in health.

That contagion and unhygienic surroundings are strong etiological factors, is shown by the fact that the disease is largely confined to the lower classes. Hypertrophy of the conjunctival follicles may be produced by the various forms of acute conjunctivitis. I have seen cases which were the result of daily instillations of atropia, which had been kept up for some weeks.

Chronic inflammation of the conjunctiva does not always produce hypertrophy of the follicles. It may persist for months and yet the conjunctival tissue, though thickened, may be perfectly smooth.

In some cases, so insidious is the onset of the disease that the patient may not for a time discover that there is anything wrong. A minor degree of asthenopia may be the only symptom of which the patient complains

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even when enlarged follicles have existed for a month or more.

Care should be taken in turning the upper lids, to have the patient look well down so as to thoroughly expose the retro-tarsal fold. The conjunctiva covering the tarsal cartilages may be perfectly smooth and yet the cul-de-sac may be lined with hypertrophied follicles.

I shall not mention all of the stimulants and sedatives, caustics and palliatives that have from time to time been praised as efficient remedies for this disease, but shall confine my remarks to a few agents which in my hands have given the best results. I have found no specific for any form of the disease; but of the more than eight hundred cases treated at the Manhattan Eye and Ear Hospital, New York, during my service there, I saw but two that did not yield to one treatment or another.

In taking charge of these cases the Physician should warn the family against using the patient's wash-basin, towels, and bed-linen.

The patient should have the best hygienic surroundings possible. His general health should receive careful attention. His eyes should be used as little as practicable, and if there be photophobia, smoked glasses should be worn.

If the inner lining of the tarsal cartilages remain rough for any length of time the cornea may become irritated and vascular keratitis is the result. In this event, unless the lids be very easily everted, the palpebral slit should be enlarged by cantholysis.

Spasm of the orbicular muscles may so confine the tears as to keep the eyes constantly steeped in them. If cantholysis does not give relief, an efficient remedy may be found in that recommended by the late Dr. C. R. Agnew—the introduction of a speculum and exposure of the eye to a moderately bright light for a few minutes.

In one case that came under my observation in which the entire cornea was so vascular as to resemble a piece of raw beef, by the use of the speculum and the daily application of tannin and glycerine, the cornea cleared sufficiently to enable the patient to see large letters.

In cases in which the follicles have been large and succulent, no other remedy has given me much satisfactory results as tannin and glycerine. Recovery in these cases can be greatly hastened by catching the enlarged follicles between the blades of a cilia forceps, and gently squeezing them. While doing this, water can be seen exuding from the succulent tissues. In some cases the follicles bleed readily, and this depletion seems to be advantageous. Tannin and glycerine should be applied after the use of the forceps. When the follicles present a fine granular appearance the application of crystallized sulphate of copper gives the best results. The action of this remedy upon the lids varies from that of a mild stimulant to that of a caustic, according to the method of applying it. All patients do not bear it equally well. When it is not well borne the alum stick may be substituted for it. After using the copper the lid should be washed before being turned back to its place against the cornea.

When the disease has existed for a long time, on everting the lower lids, we find, in some cases, the conjunctiva in horizontal folds that look and feel like scar tissue. By careful pressure with the cilia forceps a healthy action is induced which causes absorption of the inflammatory exudation.

As a rule the more active the remedy used the greater is the amount of cicatricial tissue resulting, and the greater will be the cupping of the cartilages: the employment of jequirity, the too vigorous use of the forceps, and the excessive application of the stick copper are all open to this objection.

SOME POINTS IN THE MANAGEMENT OF TYPHOID FEVER.

Read before the 31st Annual meeting of the Missouri State Medical Association, Kansas City, April 19.

BY I. N. LOVE, M. D., ST. LOUIS, MO.

I shall not fatigue this body with a labored paper on typhoid fever, giving its history,

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etiology clinical characteristics, etc., for being as you are, busy workers in the profession you are in no need of an exhaustive and exhausting elaboration of the subject. I feel safe in taking it for granted that you are all familiar with the literature.

Through the researches of Koch, Eberth, Meyer, Friedlaender, Gaffky and later of Fraenkel and Simonds, the typhoid bacillus has become an entity that must not (and cannot safely) be lost sight of during the progress of a case and after its termination.

The points I propose to present are the result of observations made in hospital and private practice during the past sixteen years, some of them being more particularly emphasized during a series of cases occurring within the past six months.

I think we are too much inclined to be on the lookout for classical representations of this disease, as of many others. I have had a number that I placidly considered simple continued fever, temperature not ranging higher than from 101° to 103°, no rose spots, no tympanites, no special evidence of intestinal irritation, nothing leading me to suspect typhoid fever, until suddenly aroused to an appreciation of the fact by dangerous and repeated hemorrhages from the bowel, and in one instance (in 1877) the bleeding continued till it proved fatal. This occurred in a boy of six, and was convincing proof to me of the fallaciousness of the idea that formerly obtained, that young children were not susceptible to the malady. In this connection I recall the circumstance of a consultation visit made to a young man who had been ailing for some weeks, though he was up and about until a few minutes before the family physician was summoned and found him suffering great agony. An investigation developed an intestinal perforation which caused death in a short time. The clinical history and the post-mortem revelations evidenced an illustration of "walking typhoid fever."

We know that we frequently have scarlet fever so mild as to be entirely overlooked until the attention is aroused by grave nephritic trouble; and so in all diseases, the artistically perfect specimen is the exception and not the rule.

It has no doubt been the observation of all, that the course and complications of typhoid fever are as varied as the individual victims, but it was not recognized till lately (by Griesinger) that numerous light and rudimentary attacks (typhus levissimus) belonged to typhoid fever at all; they used to have all sorts of names applied to them, as suggested by Struempel, the favorite being "gastric fever."

The diagnosis is of course difficult in proportion to the scanty development of typhoid symptoms, and it is best established by demonstrating an etiological relation between them and others that are plainly typhoid fever. Apropos to this mild class of cases, I remember a case that came under my observation last December, a five year old boy in a family where three other cases developed, (one fatal) of a violent character; the child was sick only about twenty-one days, and under ordinary circumstances his case would have been diagnosed simple continued or remittent fever.

As the individual manifestations may vary, so too do entire epidemics. One season the type is violent, and in another mild. During the past six or eight months I have had under my care an unusual number of cases of typhoid fever, and these together with nearly all that I have observed for two or three years past have been much more favorable in their results, due possibly more to the mildness of the infection than to the character of the treatment, though I am persuaded that the latter had something to do with the favorable showing.

Since about July 21st 1887, I have kept a record of thirty-six cases, and of that number two died, one of which really died of acute mania superinduced during the period of convalescence by sudden shock and grave domestic sorrow, she being a nursing mother and of intense neurotic temperament, the other was a delicate over-worked girl of sixteen years, with tubercular diathesis, and sick for ten days before a physician was called, she hav-

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ing been six days and nights without sleep, and in fact died from meningitis as a complication.

There are those who believe that by active interference, typhoid fever may be aborted; though I am not ready to endorse this proposition, I am sure it may be modified and abreviated. I cite briefly the following as an illustration: July 21, 1887, J. T. C., taken with violent vomiting and intense abdominal pain; examination revealed a lusty plethoric youth of 18, red tongue heavily coated, pulse 140 to the minute and full, temperature 105.5°, acute tenderness over abdomen with constipation. Remedies were ordered for opening the bowels, soothing the stomach, and reducing the temperature. After the lapse of twelve hours an action of the bowels had been secured, but there was no improvement in the general condition. Ordered at once one grain of calomel to be taken every hour, and the application of ten leeches over the stomach and ileo-cecal region at point of greatest tenderness, followed by hot fomentations. The leeches abstracted five or six ounces of blood, giving marked relief; at the end of ten hours the ten grains of calomel had produced active purgation, and this together with the local abstraction of blood, had mitigated all the symptoms; the temperature was down to 102°, the pain was almost gone, no nausea, no vomiting. The patient was in every way more comfortable, and jogged along for four weeks with a mild form of typhoid fever instead of dying during the first five days, as I believe he would have done had a temporizing course been pursued.

Recognizing the disease as an infectious one dependent upon a specific virus, it behooves us to treat it upon the antiseptic plan, aiding elimination by stimulating the excretory organs, sustaining the strength by diffuse stimulation at the proper time, and the furnishing of an abundance of nutrition in a form for prompt assimilation.

Since the introduction of antipyrin the dangers of high temperature are much less than formerly, as we certainly can control that feature; however, I favor the very careful administration of the drug, until full opportunity is given for the ascertainment of the degree of susceptibility. There have been recorded already a number of unfavorable results: even death has occurred owing probably to some peculiar idiosyncracy. I prefer small doses (5 to 10 grains for adults) at short intervals, keeping up the effect continuously, rather than large doses which produce sudden and excessive falling of temperature. I think a sudden reduction no matter how attained, is not so likely to be maintained; they are depressing and endanger heart-failure. While antipyrin is of great value as a febrifuge and tranquilizer of the nervous system and at the same time diaphoretic, I feel that in the cooling bath we have an agent equally or even more valuable. I do not mean the sudden immersion in cold water; that is uncalled for, undesirable and brutal. The temperature of the water at first should be about the same as that of the patient, and may be gradually reduced to 85° or 80°. The bath may be prolonged five or ten minutes. I doubt not you have all seen, as I have, patients wildly delirious, go calmly to sleep during the progress of the bathing. The advantages of the bath I take it are:

1. The reduction of temperature is accomplished gradually and comfortably to the patient in accordance with nature's plan of putting out fire with water.

2. The water acts primarily as a soother of the peripheral nerves, and secondarily calms the disturbed nerve centers.

3. It stimulates the secretory glands, allays thirst by being directly absorbed into the heated and dry tissues; encourages diaphoresis as well as diuresis.

4. It influences favorably the respiratory organs by energizing inspiration; and thus aids in the securement of expectoration, and as a result bronchial complications are less frequent.

5. The hygienic effect upon the skin is of great value, removing as it does the foul-smelling products of the sweat and sebaceous glands, aiding in the procurement of strength and elasticity in the cutaneous and adjacent

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tissues, conditions antagonistic to bed-sores.

Of course it goes without saying that the bath should be administered with due regard to the comfort of the patient: drafts should be avoided, and immediately following the bath a thorough drying and brisk rubbing of the surface should be instituted, and warm covering with hot-water bag to the feet if need be and a nice cup of hot broth or a little wine or toddy would be in order.

I think antipyrin and bathing or sponging may be used conjointly to good advantage. As an antipyretic, quinine should be ruled out altogether. In doses sufficiently large to reduce temperature it is demoralizing to the nervous system as well as to the digestive tract, and when we recall the fact that the sheet anchor of hope in typhoid fever consists in good digestion and nutrition, and tranquil nerves, we can see that the objection to quinine is well founded. If well-defined malarial symptoms present themselves as a complication, an antiperiodic is of course indicated, and quinine should be given, but very carefully.

In this connection permit me to express the opinion that the so-called typho-malarial fever of Woodward is a misnomer, being probably nothing more than a modified expression of typhoid fever plus malaria. Certainly the coining of a new name for every modification of a disease is confusing, and the practice should receive no encouragement.

What has been said above need not be interpreted as an objection to tonic doses of quinine during the period of convalescence, but as against the administration of quinine to an unadulterated case of typhoid fever. In the earlier, middle or later stages of the disease, there may come a time when the necessity of the situation demands the removal of the patient from one section of the country to another. I desire to place myself on record as being strongly of the opinion, that the danger of removing a person seriously sick, has been greatly overrated; that with due care and guarding against the chilling of the surfaces and interruption of the proper amount of sleep, typhoid fever and other dangerous cases may be safely transported hundreds of miles. I have a record of four cases successfully and advantageously removed from one hundred to one thousand miles on sleeping cars, which justify this conclusion.

As the administration of the calomel purge in the beginning is satisfactory, so is the renewal of one-eighth grain doses every other day to the number of half a dozen, is an advantage in the direction of keeping the bowels open, as well as serving as an intestinal antiseptic. If an additional aid is required to evacuate the bowels, an enema of a teaspoonful of glycerine will be efficient. *En passant*, I desire to emphasize the value of one dram injections of warm glycerine (as suggested by Anacker) into the bowel as a ready means of securing a prompt evacuation.

Permit me to emphasize the most salient points I desire to make, by summarizing as follows:

1. Typhoid fever varies in intensity, severity and length of attack, as do other infectious diseases, and while it has not yet been established that any of this class can be aborted, yet typhoid with all the others, may be mitigated and abbreviated, and unfortunate complications and sequelæ often prevented.

2. To the securement of this end I think that which is of paramount importance, is management rather than medication, though there are many dangers that can only be tided over by the prompt and proper exhibition of drugs.

3. The administration of remedies that are antiseptic and stimulate the excretory organs is important, and for this purpose small doses (1-50 gr.) of bichloride, or the mild chloride ($\frac{1}{8}$ to $\frac{1}{4}$ gr.) as often as is necessary to produce the desired effect is of value.

Nutrition, by the administration of food in a form for prompt assimilation is a necessity, and to this end the diet should be limited to peptonized milk, beef-peptones (Rose's) bovinine (Bush) etc., bearing in mind that the sterotyped home-made beef tea is of no more value as a food than a weak toddy, being a mild stimulant and nothing more.

5. Freedom from pain, tranquility, and per-

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fect rest should be insisted upon, and remembering that this disease of all others has a wrecking effect upon the nervous system (it having been called by some German writers fieber nervoese, or nervous fever) we should see to it that our patient obtains not less than twelve to sixteen hours sleep out of the twenty-four, and the remainder of the time be saved from the meddling, misdirected kindness of overzealous friends.

6. For the obtaining of sleep and the relief of nervousness, the administration of antipyrin, chloral, paraldehyde, urethan, and the bromides, is preferable to opiates, though occasionally the latter are demanded.

7. When the conditions surrounding a patient are unfavorable a change is desirable, even to a distant point, the removal under proper precautions against chilling and unrest, may be permitted or even preferred, the danger of the same not being as great as it is generally considered to be.

8. As a rule, a patient with typhoid fever or any other wasting disease, should not be permitted to have bed-sores, which are an expression of starved tissue and neglected skin, and are preventable, the means for their prevention being proper nutrition and bathing.

AN INQUIRY WHETHER THERE ARE MEDICAL REASONS SUFFICIENT TO WARRANT COMMUTATION OF THE DEATH SENTENCE OF A CERTAIN PRISONER NOW CONFINED IN THE ST. LOUIS JAIL.

BY GEO. HOMAN, M.D.,
Professor of Forensic Medicine St. Louis Medical College.

Read at a Meeting of the St. Louis Medico-Chirurgical Society. May 1, 1888.

I can assure the members here this evening that it is with no intention of presuming to offer them instruction that I propose the present subject of inquiry; but rather for the purpose of gaining information on my own part, and enabling me to satisfy myself as to the proper position for a medical man to take in this, and any similar case that may arise in future.

It is for no social, legal, sentimental, or humanitarian reason that I venture to raise this question, and the suggestion that prompted this course came from an esteemed member of this society in an expression of his inclination to sign a petition for a commutation of the death sentence imposed upon Brooks, or "Maxwell," for the reason of a disbelief on his part that the killing of Preller was intentional and premeditated, the verdict of the jury, and the judgment of the courts to the contrary notwithstanding.

This favorable inclination toward the condemned prisoner had its source in his known behavior and conduct at the time of and subsequent to the killing, as developed in the course of the trial; and, also, in the statements of the prisoner himself as they appeared not long ago printed at length in one of the city newspapers.

Without my having read this confession or statement, I believe its substance was that while the fact of his having killed Preller was admitted, this was claimed to have been simply a misadventure resulting from the use of chloroform given for an anesthetic purpose preparatory to a proposed exploration of the urethra for stricture.

The point in favor of the prisoner made by the member referred to, and the principal medical question germane to the inquiry, was that the chloroform must have been taken willingly by the victim, that death followed as an accident, and therefore the killing was lacking in the element of intent and malice which constitutes murder, or the wilful taking of human life.

Having deliberately taken upon himself the character and functions of a physician, fraudulently it is true, it is not unfair to measure for a moment the apparent motives and actual deeds of the convicted man by such a standard as would be used if they were in truth those of a member of the medical profession, and who was held by the chain of fact and circumstance that led to the verdict of murder in the case in hand.

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The evidence all tended to show that the prisoner was in dire need of money shortly before and at the time the killing occurred, and that he was aware that Preller was well supplied in this respect.

If, then, under the circumstances of a chance and brief acquaintanceship, the element of desperate pecuniary need, and a record showing previous questionable and reckless conduct with almost total want of moral scruple, what would be thought of a qualified physician who would deliberately arrange for and undertake the administration to a fellow-being of such a powerful and dangerous agent as chloroform without calling professional counsel, when such was within easy reach, or having competent assistance at hand in case of need!

Even if a motive for the safe and secret taking-off of the person to whom the narcotic was administered be not discernible in such a case, would not the recklessness of human life shown in subjecting it to the influence of such a drug, without the use of every care and safeguard known, in the event of a fatal issue argue a delinquency on the part of the physician—a desperate rashness and disregard of possible and probable consequences directly following his act—beyond the degree of homicide without intention, and take on features not readily explainable short of wilful killing?

Passing now from this assumed aspect of the case, but without undertaking an analysis of all the thoughts and purposes that must work in a murderer's mind, as laid down by the courts, it is known that "Maxwell" was well aware of the medical effects and potency of chloroform, that its use was suggested and advised by him to Preller, that preparations for its administration were deliberately made by "Maxwell," that the safe disposal of the body for the time being was speedily accomplished, that there was deliberation and forethought shown in his taking the dead man's money, and in arranging to escape—all these circumstances being adduced here irrespective of the fact whether the administration of the drug was with or without the victim's consent.

But supposing that the anesthetic was knowingly and willingly taken by Preller, this consideration would not alter the fact of murder, provided the design to take his life was present at any time in "Maxwell's" mind. Indeed, from a medical point of view, the means for the commission of the deed was chosen, all things considered, with rare judgment and discrimination, and the inducing of the victim to willingly submit was a remarkably fine stroke in the diplomacy of adroit and successful man-killing.

From the foregoing remarks the following conclusions may, perhaps, fairly be drawn:

1. The prior change of name and the assumption of the character and qualifications of a physician by the prisoner, to the hurt of those upon whom this assumption might be successfully and unscrupulously imposed, implied the possession of a capacity for criminal acts should seeming need for them arise, and favorable opportunity present.

2. The moral obliquity and unscrupulousness shown in thus assuming a false character, when sharpened by pecuniary want, begot the wicked recklessness of his presuming to give chloroform to Preller when he was fully aware of its dangerous nature and the possible consequences of such an act.

3. The natural acuteness of the prisoner and lack of moral scruple regarding means to an end, prompted by his medical knowledge of the advantages possessed by this drug for the desired purpose, suggested its employment when opportunity occurred and when the determination was reached that Preller's taking-off was necessary in order to enable him to obtain needed financial means for the full execution of his plans.

4. That no good and sufficient medical reasons appear to warrant physicians, as such, in petitioning the Governor for a commutation of the death sentence in this case.

SMALL-POX is not epidemic at any point in the United States, though a number of cases are reported in New York, Brooklyn, Philadelphia, and in various parts of California.

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WEEKLY MEDICAL REVIEW,

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J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, MAY 19, 1888.

ENUCLEATION OF THE EYEBALL.

The methods of treating injuries of the eyes have improved to such an extent, as to greatly lessen the number of cases which demand a removal of the eyeball.

The history of each case has an important bearing upon the question of enucleation. If there be no reasonable doubt that a foreign body is lodged in the vitreous chamber, though it may not be seen, if it cannot be removed the only safe plan is to remove the eye. If there is reason to suppose that no foreign body is in the eye, then the nature of the wound and the patient's circumstances are to be taken into consideration. Injuries of the eye are generally met with among working men, stone-masons and foundry-men. With this class of patients time is an important factor, and it should be remembered by the surgeon a patient can return to his work within ten days after an enucleation, whereas it is not unusual for a wounded eyeball to remain so inflamed and painful as to make the patient totally unfit for work for some months.

If, however, the patient is not dependent upon his daily labor, and he can remain under the care of the physician, then an effort should be made to retain the eyeball, for even in a shrunken condition, if it be large enough to prevent entropion, it is much preferable to a glass eye, or if the latter be preferred it can better be fitted over the stump than in the simple cavity.

A recent number of the *Lancet* give the report of an enucleation with intraorbital injection of cocaine as the only anesthetic. Dr. Lightfoot who performed the operation injected about twenty minims in all of a four per cent solution, near the sclerotic in the region of the muscles. His experience was similar to that of many others. A division of the optic nerve gave rise to intense pain.

Dr. Calhoun, of Atlanta, who has enucleated a greater number of eyes under the influence of cocaine, perhaps than any other man, says the division of the optic nerve causes the patient to feel faint, and to combat this, Dr. C. usually administers a stimulant to the patient a few minutes before operating. But the stimulant and cocaine combined do not prevent the pain or entirely obviate the feeling of faintness. If adhesions have formed between the sclerotic and the surrounding tissues, nothing short of general anesthesia will answer.

NOTIFICATION OF INFECTIOUS DISEASES.

A step in advance was made toward the prevention of disease when boards of health were authorized to isolate patients suffering from infectious diseases. But like many other laws in the first form in which they are presented this one has some decided defects. These defects have been strikingly brought out by instances in which flagrant injustice has been done to medical men. Our readers will remember the case in which an absurd verdict was rendered against a prominent physician of New York, for notifying the health authorities that his diagnosis in a certain case was small-pox and asked that the authorities make further investigation.

A more recent case has come to us, in that of Dr. Dalton of England, who was fined and harshly dealt with because he instructed the patient's family to notify the authorities instead of giving the notification in person. In this case the spirit of the law was complied with, and it looks to us as if the treatment which Dr. Dalton received was more persecution than prosecution.

Now that which is a benefit to a community

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is to a certain degree of benefit to each member composing the community. Many persons seriously object to having their houses placarded and they can't see the justice in being compelled to submit to such a procedure, much less to be forced themselves to give a notification that such is needed. However disagreeable this may be, we believe that for the common good notification should be given and the head of the patient's family is the one to give it.

The injustice in the present law is, that it implies that the physician is a public officer, a kind of detective. The debtor to the public is he who offends it and manifestly in this case it is the patient and not the doctor who is the debtor.

Under the present law there is a constant temptation to the dishonest physician to win favor with his patrons by treating his infectious cases under other names and withholding this knowledge from the authorities.

The question as to the infectiousness of a disease of which a patient suffers, should be decided by a public officer whose interests in no way are affected by his decisions. If the change which we have suggested be made in the law, the physician will be placed in his true and proper relation to his patrons—the adviser and protector of their interests. It would also tend to induce the laity to employ physicians on whose judgment reliance can be placed.

J. R. Lemen.

Conception After Ovariotomy.

Dr. J. A. Wetherell reports (*Lancet*) an interesting case which he says has been a puzzle to the gynecologists of his section. Patient had enjoyed good health till at the age of twenty-five menstruation became irregular and she observed a tumor in the lower portion of her abdomen. "She was unmarried and a virgin; there could be no suspicion whatever of pregnancy." As the tumor increased in size, the pain became almost unbearable, and she insisted that an operation should be performed, which was done by Dr. Granville Bantock at the Samaritan Free Hospital, London.

The case proved to be one of fibroid tumor of the uterus which had undergone cystic degeneration. The tumor involved the right broad ligament to such an extent that it could not be removed in the usual way. The left ovary was easily found and removed, but the right ovary could not be found. The tumor was now tapped and a pint or more of dirty-looking fluid drawn off. The cavity of the tumor was now opened and its interior "presented a very ragged appearance, characteristic of these cases."

As the operator saw no way of removing the tumor either by enucleation or along with the uterus, with any prospect of success, he laid the cavity of the tumor freely open toward the abdominal incision, and stitched the edges to the corresponding edges of the abdominal incision, leaving a free opening into the cyst cavity. The cavity of the cyst was filled with iodized cotton wool. The wound was kept open. From time to time small portions of the tumor were cut away and the thermo-cautery applied to stop the hemorrhage. In about three months the tumor had wasted away and the abdominal wound closed.

The patient regained good health, and four years later she married, became pregnant, and gave birth to a "fine healthy boy."

This is certainly a very instructive, and remarkable case, but we fail to see anything marvelous in it, or any reason why it should have puzzled the gynecologists. Unquestionably the right ovary was left *in situ* and the calibre of the right fallopian tube was not obliterated.

Some Cases in Abdominal Surgery.

Dr. Barton reported before the Philadelphia County Medical Society some interesting cases. Among them was one of abscess of the liver, in which he made a free incision into the liver substance, (after securing adhesion between the liver and abdominal wall) opening the abscess cavity which he

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cleansed thoroughly with antiseptic solutions, and provided for free drainage. The time has passed when a patient should be allowed to die gradually simply because "nothing can be done." Some years ago while I was interne in the City Hospital, I saw a number of these cases succumb under the let-alone-policy. But now that clean surgery is so successful we should act, and not allow cavities to remain filled with pus to poison the patients, or to open spontaneously into the peritoneal cavity.

Another case reported by Dr. Barton was one in which he performed an operation for strangulated hernia. When the sac was opened it was found that about nine inches of the bowel was gangrenous. The ring was nicked and the sloughing portion of the bowel incised. It was proposed to remove the slough on the following day, and to freshen the edges of the healthy bowel and bring them together, but before the time arrived for the operation an intense peritonitis developed, which lasted a week. During this time the sloughing bowel became detached. Following this gradual emaciation took place, and some weeks later a second operation was decided upon. When the abdominal cavity was opened, the intestine below the artificial anus was so matted together with inflammatory exudation that it was deemed advisable to join the end which formed the artificial anus to the cecum, the large intestine being entirely free. This operation proved successful; the boy gained flesh rapidly and his bowels move naturally. The fistula in the groin has not yet closed.

Such cases are not confined to the practice of surgeons; the general practitioner is occasionally called upon to treat such conditions, and while nothing new was developed in these cases, the results may encourage some others to "fight the battle out" when like conditions arise.

Some years ago I made a post-mortem examination in a case in which death was the result of strangulated hernia. The obstruction at the ring was relieved, but the autopsy showed that several inches from the hernial loop, the bowel was constricted by a fibrous band. Had the abdomen been opened at the right time doubtless the patient's life could have been saved. It should be remembered that when the ring is nicked and the loop of intestine is returned to the abdominal cavity, if the symptoms of strangulation continue, no time should be lost in opening the abdominal cavity and relieving the constriction.

J. R. Lemen.

The Illinois State Board of Health.

The work of the Illinois State Board of Health cannot be commended too highly. Some of the objects which it hopes to attain are very difficult of accomplishment. Many reforms that can be brought about only by the concerted action of a large body of people are effected with great difficulty because of the fact that the lack of such reform affects but indirectly each individual, and in such cases the fight is a long and tedious one. Discussions and repetitions of discussions are essential to the accomplishment of the desired end.

The Illinois Board of Health has taken and sustained a leading part in many things that appertain to the welfare of the public, and the good of the profession.

On the subject of medical education, of which the *Med. News* says, "it has been thrice beaten with the flail," it has worked with a persistence that deserves success.

We believe that the firm stand which it has taken on this question has had a direct effect in lessening the number of matriculates in medical colleges. It has forced several colleges to publish additional requirements in their annual announcements. It has done much to induce colleges to adopt the three year system.

If every state in the union were as active as the State of Illinois in this work the good effect would be very apparent.

The late president of the American Medical Association in his annual address, stated that he had reason to believe that the statistics published by the board above referred to,

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vere not entirely accurate. He seemed to ıave reached this conclusion from comparing hese statistics with those furnished by the Jnited States Commissioner of Education. t is quite probable that the inaccuracy is to ıe found in the report of the latter rather han the former. It is to the interest of every nedical school to present as large a list of raduates as possible. As a precaution gainst the furnishing of lists of graduates in round numbers" the Illinois Board requires ll doubtful colleges to furnish the names nd post office addresses of all their raduates. It is probable that the "round ıumbers," accepted by the Commissioner f Education will account for the discrepancy.

There is no man in this country who is nore widely or more favorable known as a anitarian than is Dr. John H. Rauch, the ecretary of the Illinois Board. He has nade the work of the Board his life work. Outside of his travel and other expenses incurred in his work the only remuneration he receives is the satisfaction of advancing the interest of humanity.

Proposed Law with Regard to the Embalming of Dead Bodies.

The *Med. Record* says a bill has been introduced into the New York state legislature which provides that "it shall not be lawful for any person or persons to introduce into or upon any dead body of any person or human being, any poisonous substance, organic or inorganic, for the preservation of the same, or any so-called embalming fluids or materials of any kind which will in any manner, whatever, interfere with chemical tests which may subsequently be applied or made use of by chemists in medico-legal investigations."

We presume the bill will not be made a law, as it would seriously interfere with the study of practical anatomy as it is now conducted in the medical colleges. As is well known, the injection into the arterial system of a solution of arsenite of soda is one of the best means that we have for preserving dissecting material. Perhaps the author of the bill is an anti-medical-college man.

EDITORIAL ECHOES.

Thirty-Ninth Annual Meeting of the American Medical Association at Cincinnati.

BY I. N. LOVE, M. D.

While the number registered was not as large as at some previous meetings, yet the character of the attendance and the number of valuable papers brought up the average to an equality with any former session.

Many of the "old reliables" of the association were conspicuous by their absence, and those who remain are showing marked evidence of increasing age, and whether they be growing old gracefully or not let us honor them for their work and their constancy.

The most prominent and ever present personality of the American Medical Association is the one to whom belongs the honor of being its founder, and that he continues to be its chief director none will deny. His physical vigor may be less, but his gigantic intellect with all its force, clearness and decision, and commanding influence remains unimpaired.

The work that he has done for the American Medical Association will ever be a monument to the heroic power and wonderful influence over his fellows, of N. S. Davis.

Cincinnati is well equipped for the accommodation of a large convention, both in the possession of large hotels and a grand exposition building and music hall, the whole giving ample space for the general session and the various sections.

Many public and private entertainments and receptions were given the delegates, and, as is usual on such occasions, all seemed to enjoy themselves.

A large number came from the East, many who have attended long, faithfully, and to the good advantage of the Association, and

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others who have maintained a distant reserve for some years, but at this meeting came in force bearing olive branches and other emblems of peace and good will.

All were taken into full fellowship, the profession of America has "let by gones be by gones" and is loving again. So mote it be!

The next meeting place will be the delightful watering place Newport; the time, somewhere along the genial gentle,merry,month of June, when all the world is beaming with joy and gladness, and not even man is vile.

Undoubtedly it will be a royal meeting in those royal, rollicking, rosy, "rare days in June," in the rich, racy, and rocky old state of Rhode Island.

Many delegates were accompanied by their wives, invariably bright, intellectual, winning and handsome, and as Frank Woodbury would say, (an expert on such matters) "the brightest jewels in the crown of the medical profession."

When I met here, there, and everywhere, Shoemaker,Carl Seiler, Larabee,Mathews,Reynolds, Connor, Wile, Dunglison, Octerlony, Porter, Secretary Atkinson (ever alert, active and faithful) Griffith, Xenophon Scott, with their respective wives all deeply interested in everything, I felt rebuked for my seeming lack of gallantry in having come alone, and even though the absence of my better half was dependent upon incumbrances of a positive and animated character, impossible to ignore, I would fain have taken the first train for home only that my loyalty to duty and my profession prompted me to stay at my post even at the expense of my feelings.

These doctors wives' aforementioned intensified the conviction with which I have long been possessed that as doctors are the "Salt of the Earth," so too the ideal woman, and the most worthy wife is she who shares the sunshine and shade of a doctor's life.

A sentiment similar to the above thrown out by myself at Cincinnati, drew from Todd, of Kentucky, Cook, of Indianapolis, and Fulton, of Kansas City, a promise to next time bring their other and better selves.

The eminent and courtly Pancoast, he of the long line of Pancoasts was here and there, and every where he met his friends.

While worthy of the esteem and admiration of his fellows all these years for possessions of head and heart rarely equaled, I must admit that the accompaniment of his noble boy, handsome Howard Pancoast, a youth of sixteen elevated him at least forty degrees in the estimation of all. If face is any indication of character (and I think it is) that boy Howard will do honor to the honored name he bears.

The presence of father and son indicated that the father is, as he should be, the friend, intimate and companion of his boy.

The one weakness of the average doctor particularly if he be a busy man, is that he does not take time to become acquainted with his family.

Who said *Sim* was not there? The solid, substantial F. L. Sim, Memphis, *was* there in all his glory, and his presence cheered and rejuvenated his friends. Memphis could ill spare him, but he being not spare himself, but round and rotund instead, the convention and the gathering of the clans would not have been the superb success it was had he not been there.

Dr. Jno. H. Rauch, the great Illinois sanitarian, who has done more for preventive medicine and the prevention of an excess of inferior doctors than any other one man in America was there, and right royally received by his admirers.

The ever loyal and true, warm and working Wile was there, as usual working for the advancement of science and the interests of his friends.

Harvey, Cook, Woolens and Ferguson, o

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ıdianapolis, were ubiquitous, giving evidence ıily that the state society of Indiana had ɔen wise in their selection of state leaders.

Pennsylvania in additon to Shoemaker, 'oodbury, Pancoast, Goodell, Pepper, artholow and a score or two of others, sent ı abler, better and stronger men than Early Ridgeway, and Wood and Daly, of Pittsırg. Speaking of the latter two recalls the port of Wood on dietetics before the general ɜsion. A strong, practical presentation of ırite subject from a strong and practical ın, one of the few who, no matter how long lives, will never be old and will ever be in ɛ with his profession.

And as for Daly, he (of International Conɜss memory as presiding officer of his laryngological section) did splendid scientific work, d managed to overcome by his magnetic rsonality every one in attendance, male or male. He was unanimously elected the ilac"of the convention.

Armstrong of the Marine Hospital service tioned at New York, and Eggleston of the ssociation Journal at Chicago, were elected be the most *distingue* and *recherche* deleɛs in attendance.

The Kentucky delegation carried off more ıors than any other state, and it deserved m, as it always does.

Virginia was in the early days considered mother of statesmen, but Kentucky ever been and is yet the mother of doctors.

The warm, wary and winning Wathen, the al, luscious and lucid Larabee,and Roberts Royal, each received a presidency of a tion and it goes without saying that those tions will be well and gracefully served ing the coming year.

Kansas was honored as well as the A. M.A. he selection of Schenck (a near relation the ex-minister to England) to the posiı of first vice-president. Schenck charmed ıll at the recent meetings of our Missouri ɛ medical society at Kansas City, and the entire West take pride in his preferment.

In the matter of brains, and the ability to demonstrate the possession of them Schenck "holds a full hand."

The local profession of Cincinnati were constant in their attentions and I desire to return my sincere thanks to Drs. Culbertson, Hyndman, Giles Mitchell, Caldwell, Conner for many kindnesses receieved. The queen city club has no brighter and abler members than those who represent medicine.

Doctors Griffith, Block, Thompson, Porter, Fulton (of Kansas City) Mudd, Bond, Lutz, Porter, Glasgow, Thomson, Moses, Meisenbach, Delaney, Graves, (of St. Louis), Brooks and Mathews, of Carthage, Boulware, of Butler, all having only two or three weeks before given a week to the state society, by their presence at Cincinnati, gave evidence of enterprise commendable and unusual, and emphasized the fact that they deserve to be what they are the leaders, the "bell wethers" so to speak in the profession of their respective communities.

N. Senn, of Wiscon-Senn, the surgeon of many N's, was surging around generally and was N-thusiastically N-dorsed and received N-coniums on all sides. His personality, his paper accompanied by ocular demonstration and vivisection was the event of the week. He unquestionably carried off the honors.

Dr. Hal. C. Wyman, of Detroit, whose name has appeared to good advantage much in the liteature of the profession during the past two years, was a handsome specimen of the Michigander, and sustained the honors of his state along with Eugene Smith, H. O. Walker and Mulheron.

These latter together with many others who loom up before us, impressed me with the fact that the leading minds of the medical profession of America to-day are in the neighborhood of forty years of age.

The thought suggests itself timidly, must

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not the American Medical Association recognize this fact soon or else be left in the lurch?

Cincinnati is unquestionably a thoroughly cosmopolitan city. One can take in the enjoyments of the forum and the fountain, of the Rhine and the Highlands, sweet Auburn, the delights of Cologne, and the beauties of the Garden of Eden all within its precincts, and between art galleries, potteries, zoological collections, and other animated attractions there is something to please all forms and conditions of men.

Among the many able, entertaining and interesting men whom I met there was none who surpassed Drs. B. Locke, of Kalmazoo, Loocid, of Los Angeles, Fulmup, of Detroit, Swieback, of Vienna, and Meselbock, of Chicago. Whether the discussion took the direction of science, dietetics, anatomy, music or art, each and all made themselves felt, manifesting thorough knowledge of the subject, and held their listeners spell bound.

The combine between Henderson, Ky., and Evansville, Ind., represented by Dixon and Owen was abiding and ever present and absolutely irresistible. But when it comes to being master of the situation, no matter what it is, commend me to the salient, sapient and superb Palmer of Louisville. He was there in full force seeing and conquering.

Of course in all conventions after the severe and scientific labors of the day are over, the genial and social come together as the needle turns to the pole. They "swap their stories" and sing their songs, and are brightened and benefited thereby.

A verse of one of the songs which I heard going the rounds of the choicer souls went something like this:

Hey jiggle, jiggle, hey jiggle jiggle
Hey jiggle jiggle gee.
Soft soap, soft soap, but you can't
Ivory soap me.

Did you ask if Lambert was there? Why, of course he was. A meeting of the American Medical Association without Lambert(Jordan W.) would be like the play of Hamlet with Hamlet left out. And if he ever so far forgot himself and his duty as to fail to come, a committee would undoubtedly be appointed to at once proceed and bring him *vi et armis*.

Taking it all in all the meeting of the American Medical Association for 1888 was a pronounced success, and Cincinnati with her local profession will linger long in our memories.

CORRESPONDENCE.

LONDON LETTER.

LONDON, April 14, 1888.

EDITOR REVIEW.—The Lumleian lectures in the Royal College of Physicians were delivered this year by Dr. Dickinson of St. George's Hospital, well known for his writings on diseases of thekidneys and diabetes, and some little surprise was felt when it was known that "The Tongue" was to be the next text of his lectures and not anything from his own speciality. The lectures were however of considerable interest, and were couched, as indeed are all his writings in the most elegant diction.

I give a portion of his concluding remarks. "The tongue is an index of constitutional states, seldom of individual diseases. An ancient theologian described the face of a wicked man as a map of the empire of sin. It has been fancied that the tongue presents a map of the empire of disease; and a writer, though one of no great note, has gone so far as to divide the lingual surface into a number of rectangular regions as numerous as the United States of America, which he places under the rule of separate organs; the larynx, the bronchi, the lungs, the pleuræ, the large intestine, the small intestine, the kidneys and the brain each possessing a distinct territory. The heart, says this writer very wisely has a common control over all. But in truth the tongue has no such local signification; it sel-

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dom points to solitary organs or isolated disorders, but is rather a gauge of the effects of disease upon the system than an indication as to the locality of it. It is often a guide in treatment so far as treatment is general and not local; and it is an important help in prognosis. It may be doubted indeed whether any means open to the physician including the pulse and the thermometer give him more insight into constitutional states than he can derive from the tongue. Clinically it always speaks the truth and in a language which is not foreign to the experienced physician. And how much truth or rather how many truths are to be read on how small a page! Conditions of fever and of feeding; states of the nervous system; the maintenance or abeyance of vital secretions; failure of vitality, though we may not be able to find out why; in one case that the disease is getting the better of the patient, in another that the patient is getting the better of the disease, all these are discernible to the educated eye. The clinical value of the tongue largely depends on the number of interests it represents; these are more or less mingled in its indications, and the impression they convey is a combined one, but it is none the less valuable because comprehensive; it gives to a glance what otherwise could only be learned by detailed inquiry. * * * It has been shown that the several degrees of coat are mainly due to overgrowth of epithelium, though in a smaller measure to its want of removal, and that there is a remarkable correspondence between the heat of the body and the coating of the tongue. If the tongue be coated, the indication is usually of febrile disturbance without especial reference to the stomach or liver,and points more to the general system than to the alimentary. Though something is to be ascribed to disuse yet I think I have shown that too much has been, and that more than one modern observer, like an uncharitable pedagogue has attributed to idleness what is directly due to illness. * * * The dry and encrusted tongue is seldom disregarded as a cry for animal liquids, which require little digestion and alcohol which requires none. I have often taken the dry tongue as an indication for peptonised food, and thought it beneficial, but have not as yet had enough experience to speak confidently. * * * When the tongue becomes dry and bare it is ill with the patient. He is not sure to die, but likely too if as has been said the tongues of dying men enforce attention, it must often be directed to this. The indication of the red smooth tongue, is for what failing nutrition calls for, tonics stimulants and food probably liquid, but nourishing. The failing pulse does not more surely tell of asthenic tendencies than, as a rule, does the dry, red and polished tongue. The tongue indeed has a whole book of prognostics written upon its surface. When the tongue is approaching the condition of health, so as a rule is the patient; as is seen whenever the red, dry and bare tongue acquires moisture and clothing. There is no better sign in diabetes than the resumption of the natural moisture by a tongue that has been dry. Something may be judged by the way an encrusted tongue cleans; if gradually and from the edges well; less so when in scales, especially when the surface exposed is red and dry. One glance at the coated or plastered tongue may give an assurance which perhaps could not be otherwise obtained that the disease is on the wane. If the thick coat in the center steeply shelves toward the sides and front revealing a normal moist and not over-injected surface, the tongue is in process of cleaning; the natural friction is overcoming the coating process and tongue and patient are on the mend. A tongue acquires a coat more evenly and generally than it parts with it; we can thus tell whether the coating is on the advance or decline and apply this rule to the disease."

Sir Andrew Clarke has succeeded Sir William Jenner as President of the College of Physicians, he has been very lucky as he is much younger than the average of his predecessors at the time they were called to the presidential chair, but the illness of Sir William Gull and the death of Dr. Wilson Fox removed the two must likely men from the list of competitors Dr. Quain had a strong

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contingent at his back, but not quite enough to get him in so he was defeated by some half dozen votes more or less.

At the last meeting of the Royal Medical and Chirurgical Society, Sir Spencer Wells recorded a successful case of splenectomy. The patient was a young unmarried woman aged 24, the spleen was greatly enlarged and wandering with a long attachment. It was only the fourth time he had performed the operation, but whether all his other cases were successful did not transpire. He expressed himself in confident terms as to the ultimate success that this operation would have and said that thirty years ago ovariotomy had no better record than splenectomy at the present time. At the same meeting Mr. Page showed a young man aged 22, who had been twice operated on for stone by median and lateral lithotomy, and came under his care with symptoms of left pyelonephritis. An incision over the left kidney in the loin enabled him to remove some small calculi, but the patient was not cured, and after a time it was suspected that the pus in the urine came from the right kidney, for there had been some symptoms suggestive of right renal colic. Accordingly an incision was made over the right kidney with the result of the removal of more calculi and the complete recovery of the patient. Mr. Page considered that his case suggested very strongly the necessity for caution in removing the kidney for calculous nephritis, as such an operation in his own patient would have been fraught with the greatest danger.

A case of chorea fatal in 160 hours has recently been recorded by Dr. Clifford Beale. The child was nine years old, had had fairly good health before and no cause for the chorea had been made ont. The movements were very violent, the skin dry and hot, the pulse 160 on the third day when she first came under observation. She rapidly became worse, was delirious, had difficulty in swallowing, the respiration became rather irregular and she died suddenly on the sixth day of her illness. The post-mortem examination revealed nothing special and nothing to account for the extreme rapidity of the case. Arsenic, morphine, chloral and bromide of potasium were tried but they did not seem to do any good at all. The case resembles much more chorea as we see it in young adults at the time of puberty than the affection of children, and in future it would be well to bear iu mind the possibility of a case taking so unfavorable a turn.

R. M.

ANTIFEBRIN.

STANBERRY, MO., May 10, 1888.

EDITOR REVIEW.—Some time since I called the attention of the profession to the therapeutical action of antifebrin in inflammatory rheumatism. Since the publication of that article, I have received letters from physicians in Kansas, Illinois, Indiana and also this state asking me to give particulars as regards dosage, etc. To these inquiries, I will say, that antifebrin, like all other drugs will admit of no fixed rules as to the amount given; but that must be left entirely to the discretion of the physician. But to approximate to something like rules, I can only say that I have given it all the way from iij to xv and perhaps xviij grains. I have been governed by the susceptibility of the patient. Those who are very susceptible to the influence of other drugs respond equally well to antifebrin. The drug when administered to one of ordinary susceptibility, will, in about five or ten minutes, produce a sense of warmth throughout the entire body, but more intense in the trunk. This feeling is not unpleasant, on the contrary one feels generally stimulated, and in about thirty minutes you are under almost full influence of the drug. Whatever pain you have been suffering is either mitigated or entirely relieved.

There are some cases in which the first dose is a failure, but on its being repeated, which may be done in an hour, or even less, the peculiar action will be manifested. I have found a few instances where there was marked cyanosis of the finger nails and the lips, even the whole face may by cyanosed; but the pa-

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tients were not cognizant of this condition, only by right. This condition however, subsides in a few hours on the discontinuance of the medicine, yet I have continued to give it without stopping and allowed the cyanosis to take care of itself. There were no bad symptoms following this condition in any of my cases. Having been informed that antifebrin belonged to the phenol group, I thought perhaps that it might be antiseptic; therefore I gave it a trial in a case of puerperal septicemia following an abortion. I found the patient with a pulse rate of about 130° and dicrotic, temperature 104.6° F. The surface bathed in cold clammy perspiration, marked tenderness over the hypogastric region, and a fetid discharge from the vagina. I gave about x grains of the drug and commenced to prepare to use the hot vaginal douche. I took her temperature, about 45 minutes after and found that it had fallen about 2°. I then used the hot douche and left her feeling quite comfortable. I ordered the medicine given every 4 hours unless the patient slept. I returned the next day and found her doing well.

I had continued the hot water (plain). The foul discharge still continued, yet the septicemic phenomena had in a great measure subsided, however, I took the precaution to treat the endometrium with iodized phenol and ordered the douche continued and also the antifebrin. The patient made a good recovery. She went four or five miles in a two-horse wagon in a week after my second and last visit. From the above experience with this agent, I am inclined to the opinion, that in antifebrin we have one of the best antiseptics for internal use; and furthermore that if it continues to give such results in inflammatory rheumatism as it has in my few cases and also if it proves to be a fact that the microbes of rheumatism have really been isolated; then we may venture to say that perhaps the rheumatic bacilli have met an antagonist in antifebrin worthy of their steel.

I have given it with quinine sulph. and the one seems to enhance and intensify to some degree the action of the other; yet the peculiar action of each is markedly manifest. Antifebrin acts more promptly and surely when given with sugar. Just why, I don't know. I would say as a sort of summing up the properties of this drug that in my opinion, antifebrin is a febrifuge, antiseptic, hypnotic, heart tonic, vaso-motor stimulant and with all a tranquilizer of the cerebro-spinal system, approaching nearer to the normal condition than any other agent that we are acquainted with. Those of my professional brethren who have written me privately and through the REVIEW, have my thanks for their interest in the matter.

E. HOUSTON. M. D.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday April 14, 1888. The President, Y. H. BOND M. D., in the chair; J. B. PRICHARD, M. D., Secretary.

DR. F. J. LUTZ.—The history of the patient from whom these specimens were obtained is about this. She was a married woman, 47 years old, the mother of seven children, and had had one miscarriage. Her family history is good, there being no hereditary predisposition, so far as I could learn, nor any acquired constitutional vice. About eleven years ago, she having complained previous to that time of pain in the right lumbar region, and a frequent desire to micturate, and being then seven months pregnant, she was one day seized with violent pains in the bladder and succeeded in expelling these two very large calculi, which were lodged in the urethra, and she assisted the expulsive efforts of the bladder with her fingers removing the calculi. Shortly afterwards she gave birth to a child. She believed that the passage of these stones brought on her labor pains. The child is still living, being 11 years of age. These calculi were preserved by the family. On last Friday evening I saw her, and she then told me that four years ago I saw her and made a diagnosis of cystitis, and that I prescribed for her several times. I obtained the following history from Dr. Riley

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who called me to see the case: She had been in bed for about four weeks, having a high fever; temperature having ranged all the way from 100°, which was the lowest,to 105°, which was the highest; there was a frequent desire to micturate, but she passed very little urine, which was high colored and contained a very thick sediment. The sediment had been examined microscopically, and no casts or pus were found. The urine which I saw, which was drawn off last, evidently contained some pus, there was a thick, creamy looking sediment in the bottom of the vessel after the urine had stood for a little while. She had been delirious during the previous night, and she had profuse sweats. On making an examination, I found that her abdomen was tender, especially on the right side, and this had existed for some time. Leeches had been applied there, in fact she had been treated for peritonitis. On making a digital examination through the vagina, I found on the right side of the os uteri a hard substance. The woman was really in extremis and it was only at the urgent request of the family that I attempted to remove the foreign substance, which I supposed at the time was a stone lodged in the ureter. After dilating the neck of the urethra by means of a Simon's speculum and getting my finger into the bladder, I found the hard body which I had discovered by the vaginal examination was a stone, and higher up there was another. I could distinctly move one on the other. They were lodged in the ureter. I made an incision with a knife over the site and removed them by means of a pair of forceps and we then found a third stone lodged in the ureter. As was expected, the woman died, and I was fortunate enough to obtain an autopsy, which I made this evening before I came here. This specimen is interesting perhaps only from the fact, that it presents a condition of cystic degeneration of the right kidney and an enormous dilatation of the ureter, the ureter being very much thicker than my thumb. I was only permitted to make a post mortem of the abdomen. I found that she suffered from a peritonitis involving the right half of the abdomen. The colon was pushed forwards and upwards toward the median line of the body, and behind it, perhaps in a space that would correspond with the meso-cecum and meso-ascending colon, (although there was none behind that space) and in the right lumbar and iliac fossa I found an immense cyst which had perforated and produced peritonitis

I show you here the right kidney, which has become enormously distended and pushed downwards towards the pelvis. The bladder is not hypertrophied at all. It was hardly a case for operation, but it was performed at the urgent request of the family.

Dr. Bond.—Was there any attempt made to remove the calculi by pressure exerted upon them through the rectum?

Dr. Lutz.—No, there was not because it was not necessary. After dilating the neck of the bladder with the speculum I could feel them by introducing my finger and they did not go out of the way at all; there was no extra pressure required from any other direction; not even from the abdomen. After making the incision, the use of the forceps enabled me to extract the stones very readily. A little manipulation was required to get hold of the last one because it was high up and we had to go around the corner which the curve of the stone forceps readily permits one to do.

Dr. Dorsett.—Do you consider that the colicky pains brought on the labor in the seventh month of pregnancy?

Dr. Lutz.—The woman so considered them, and it is reasonable to suppose so.

I would say that our president perhaps remembers the case of calculus of the ureter which Dr. Richmond of St. Joseph, reported at the state association, in which he successfully removed the calculus through the bladder.

Dr. Meisenbach.—Was the urine very ammoniacal at the time you removed the stone?

Dr. Lutz.—Yes, sir; it was decomposing very rapidly.

Dr. Prewitt.—From the appearance of the first stones, which the woman removed, it

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is probable that they also were formed in the ureter. It is probable that had the condition of the kidney been recognized earlier, a lumbar operation might have saved the woman's life. Of course at the time Dr. Lutz saw the patient she was moribund and nothing could have been done.

Some two years ago an old man came to me with a tremendous swelling in the left lumbar region, which bulged out in front like an ovarian tumor, except it was lateral. In that case there was a long history of trouble with the left kidney; he said he had been troubled with that kidney for twenty years. I made a diagnosis of perinephritic abscess. The man was seventy years old, very much reduced and nothing could be done except make an incision in the lumbar region, which I made and something like two gallons of pus were evacuated. Of course the case was not hopeful. After cutting down upon the lumbar region I found a large sac of pus, which was evacuated and I passed my finger in and could feel another cyst wall, and perforating that an immense quantity of pus was evacuated. Under careful treatment the old man survived, and I saw him recently looking the picture of good health. Now how far the kidney was directly involved I can not tell; it might have been perinephritic exclusively, but I suppose the kidney was also involved.

Dr. Prewitt presented patient and said:

This was a case of double hare lip, with cleft of both soft and hard palate. When I first saw the child it was three or four months of age, and there was such an extensive cleft of the hard palate, that I did not think it possible to close it; the alveolar processes were separated some distance as well. I then only closed the cleft in the upper lip. This was followed by a drawing together of the alveolar processes and narrowing of the osseous cleft to a very marked extent. In fact it will now be seen that the alveolar processes are in contact and seemingly united. The cleft of the bone was still too great I thought to attempt a muco-periosteal operation. I did not believe I could get material enough to slide into the central line and close it up. I closed the soft palate and the narrowing of the hard palate went on quite rapidly. It has been some months since the soft palate was closed and it has been three weeks since I did an operation for closing the hard palate; cutting close along the border inside the teeth, sliding up the periosteum from the border inside the teeth, sliding up the periosteum from the border and bringing the flaps together in the central line. There was considerable strain upon the flaps, posterior as well as anterior, and they united only in the central portions, but since then the opening left in the posterior part of the hard palate —at least the flaps—has closed very considerably and the opening anteriorly has diminished very materially also. While the operation is not a complete success, it is so nearly a success that there will be but little difficulty in closing the openings that are left. The gentlemen will see that the incisions are not yet healed upon the side and and I still have a plug of cotton upon one side, which I put in to take off the tension from the flaps and keep them well together so as to favor union of the edges. The result promises to be a complete success, I think, with perhaps an additional operation to close the little openings in front and behind. The lip will be seen to be a little redundant at one point. There was a central piece here which I left in closing the double hare lip. I did not remove the tissue but left the central piece that was there, and in bringing the flaps together it made a redundant projection which will be readily seen, and which can be easily abscised when it is desirable. Such tissue usually shrinks a good deal,and I think it is unnecessary to disturb it now. The little fellow was quite impatient after the operation and fretted a good deal. I think that may have had something to do with the failure to close the central stitches.

Dr. Edward Borck.—I think the case of Dr. Prewitt is rather interesting. I am pleased to see that he did not cut away the redundant tissue. It is usually the practice in operation for single or double hare lip to cut it away. When the child grows a little older the sur-

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geon can take a knife and cut the skin away, leaving the mucous membrane, and it makes a beautiful lip.

Dr. W. G. Moore.—The specimen which I have here is a complete cast of the vagina resulting from the use of a nostrum called "Orange Blossoms," which comes with all the heraldry of first class quackery. The man who manufactures the nostrum from a bitter extract of orange blossoms, is an eminent medical practitioner of Indiana. It is guaranteed to cure everything that affects females peculiarly. He further states that it is entirely harmless; wlll do away with vaginal surgery: that gynecologists will no longer be necessary where this is used, etc. All of these statements are untrue, but that which I wish particularly to emphasize as a lie is the statement that it is harmless. An abortion followed its use in the case from which this specimen was obtained. A perfect cast of the vagina was thrown off. Of course I think it is one of the duties of a representative medical body to advertise these things as little as possible, but at the same time I believe it is the duty of every practicing physician to disabuse every intelligent mind that comeswithin his reach of the idea that such preparations are harmless..

Dr. Pollak.—What produced the cast?

Dr. Moore.—I suppose the astringency of the nostrum was sufficient to cause the vagina to ooze blood. When I first obtained the specimen it was almost covered with blood.

Dr. L. H. Laidley, presented a patient and said: This gentleman has rather a romantic history, being one of the victims of the Sioux massacre in Minnesota in 1862. He was one of the body of 200 volunteers who went out to relieve the injured, bury the dead and rescue those who had been taken prisoner at that time, and he was wounded. About seventy of the 200 were killed. In trying to escape the builets of the Indians, he got down upon his hands and knees, and while he was in that position a shot, evidently from the cliff above entered at the pointwhich you see here. I have in my hand the bullet which weighs 10 grains less than three drachms. He was unconscious for three weeks after the injury, and for years his arm was paralyzed so that he could not use it at all. The bullet was lodged in the humerus about two inches from the head, and he carried that bullet until last January; about 25 years. I first saw the case 10 years ago, and advised the opening up of the cavity which was easily explored with a probe, believing that the bullet was the cause of the trouble from which he suffered. There was sloughing of the part and spiculæ of bone had been removed at various times. He was operated on last December,the wound was enlarged as you see here and in the shaft of the bone the bullet was found and removed. During all the time he carried this bullet there had been much pain and a considerable discharge of pus, which kept him very much reduced in flesh, and since the removal of the bullet he has become much stronger. Dr. Outten removed the bullet before the class at the Beaumont College.

Dr. Beemer.—I brought these specimens with me to-night without announcing them, because I did not know how they would turn out. I have several cultures here. You will remember that some two weeks ago I presented a case of ulcerative endocarditis, and I then made the remark that I had found microscopically an organism which is generally supposed to be the cause of ulcerative endocarditis, namely the micrococcus pyogenes aureus. At that time I only surmised that it was that organism from the morphological characteristics of the bacterium; I had not proved it, however; I had not procured cultures. It has a peculiar appearance, the pyological properties and the action of the micro-organism upon the substratum, by which they are recognized. My surmise was correct in so far as it is really the micrococcus pyogenes aureus. That was the most prevailing of the organisms in question. It was the only organism that I found, but on trying to make cultivations I find there are other organisms in the necrosed spot. You will remember it was the bicuspid valve that was principally attacked, and I have been able to find at least three distinct organisms; whether

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ey were all pathogenetic or not I am una- to say. I submit them to your inspection. im sorry to say that the weather is so warm it they are in an advanced state of growth, d even since this evening they have grown siderably. You will see at once by look- at them why the name micrococcus aureus s been applied to them.

In addition to this micrococcus aureus I ceeded in isolating another pus producing cro-organism; the micrococcus pyogenes rix, the lemon colored pus-producing or- ism; and in addition to that there was a tic organism which in its manner of wth and morphological resemblance is y much like the anthrax bacillus. I will that I inoculated a mouse, in the hope of ducing a general infection by the pus pro- ing bacteria, but I did not succeed in that. septic process was set up and a number of same bacilli that are to be found here in is plate occurred in the blood of the mouse, d the mouse died of septicemia. What d of septicemia I am not prepared to say. imply wish to repeat here that the micro- cus of endocarditis is a nosological entity; s produced in all probability by a number organisms. I received about a year ago m Dr. Hulbert a specimen from a woman died of peritonitis or from puerperal fe- at the female hospital. The woman died lly from endocarditis, and the bicuspid ve was found to be the one involved in the rotic mass, and in this necrotic mass there e a great many of the micro-organisms t give rise to erysipelas; the micrococcus sipelatosus, which at the time proved that ocarditis and erysipelas are identical eases.

have another specimen here which I ob- ed this week from the City Hospital. It case of gangrene of the penis. A man brought into the City Hospital in an un- scious condition, and it was found that all soft parts extending even to the groin re very great inflamed; that there was gen- l edema, and on opening some of the ellings in the groin no pus was discharged, an ichorous matter. I tried to cultivate the bacteria that were at the bottom of this affection, that is to say at the bottom of the gangrene, and I obtained the bacillus of malignant edema, which again shows that cases of surgical gangrene are as a rule due to this decomposing bacterium.

Some of the gentlemen will remember that I demonstrated before this society, organisms coming from a case of malignant edema in a woman who had produced an abortion with unclean instruments introducing those organisms into the economy; that woman rotted away. During life a great many blisters formed which emitted stinking gases. This same organism, or malignant edema, I reproduced in the test tube. I plunged pieces of it in a test tube taking care to exclude the air. The bacillus of malignant edema shuns oxygen; therefore I took care to plant it into gelatine. You can observe the gas which was formed in these test tubes, which is a striking and very interesting phenomenon. This vescle is formed only by this one bacillus and none else in the whole realm of bacteriology so far as bacilli are known.

Dr. Young H. Bond.—We have cause to felicitate ourselves upon the work of the gentleman who has just spoken. It is in a valuable direction and there are exceedingly few men at work in that direction who work so well as Dr. Bremer does. I certainly feel that we have cause to congratulate ourselves, and we should extend him every encouragement possible.

Dr. R L. Thomson read a paper on "Follicular Conjunctivitis."

Dr. Dickinson.—I have been much interested in the reading of this paper. The means resorted to by the doctor have proved advantageous in my hands. I think these follicles can be aborted, in the manner suggested, very effectually by the pinching, in other words, their destruction by compression, causing the expression of the serum which they contain.

Dr. Pollak.—I join Dr. Dickinson in his statement as to the treatment of follicular conjunctivitis. Pressing out the contents of the follicles is one of the most important

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remedies. I also use a mild solution of nitrate of silver sometimes with considerable advantage. I would not use the sulphate of copper. It is very irritating, and I have discarded it. It is very painful and very difficult to use in children. The tannin is admirable. The doctor only spoke of the milder cases of conjunctivitis. There are some cases of a high degree when these applications are most impracticable, we can not always evert the lids, they may be so swollen that it is almost impossible to do so and these applications are not so beneficial as we might suppose. The doctor did not refer to those cases where it is necessary to make an incision in the external canthus in order to evert the lid. This has been used largely by Dr. Noyes, and I have done it in some cases where I have found it impossible to evert the lid, I have made an incision dividing the orbicularis muscle, an eversion of the lid then became practicable. I do not think the doctor referred to the necessity for cleansing the eye. This is a very important matter. Cleansing merely with water is not satisfactory, and besides the water will not always reach the sulcus or fornix of the eye. Something has to be done by which the secretion of the fornix can be got at. Within the last ten months the peroxide of hydrogen has been used by me, and it has accomplished every thing one can desire. It is the best application that can be used both in mild and severe cases. It cleanses the eye without trouble. Only within the last few days I have had a case of ophthalmia in which it was impossible to evert the lid it was so swollen, the orbicularis was contracted so it was impossible to evert the lids, and cleansing became almost impossible.

By instilling a few drops of the peroxide of hydrogen into the eye it became clean and I had no occasion to evert the lid. Another remedy which plays an important part in the treatment of this and other eye troubles is cocaine. Cocaine and peroxide of hydrogen have simplified and rendered more easy the treatment of many eye troubles, especially such as are accompanied with a hypersecre tion.

Dr. Meisenbach.—How strong do you us the solution of peroxyde of hydrogen?

Dr. Pollak.—The pure peroxide of hydro gen of commerce. Two weeks ago today w operated in a case of cataract on an old ge tleman. The operation was very successfu but on the removal of the plaster on t fourth day there was a pyemic condition abo the edges of the cornea, a very serious thi It could not be cleansed with cotton, and w ter would not do it. I instilled one drop the peroxide of hydrogen, and it was instant cleansed, and we had no further trouble wi it.

Dr. Johnson.—I would like to have D Bremer tell us what is the organism whi causes this trouble and what will kill them.

Dr. Bremer.—I can only say that I hav had no experience of my own, have never in vestigated this matter, made no experiment whatever, therefore I can only speak of wha I have read. It seems to be an established fact that trachoma of the eye is due to an or ganism, and that there is no such thing, for instance, as true sympathetic ophthalmia, tha the nerves have absolutely nothing to do wit the inflammation, but it is always an orga ism that produces the inflammation. I onl know of one organism and that the micrococcus of trachoma. Of course, the is an organism of conjunctival ophthalmi and I suppose there must be a number others. I do not see, for instance, why th common pus-producing organism, or the gol yellow, or gray coccus should not set up i flammation in the eye as well as they do i other parts of the body.

Dr. Post.—I will say that I was ve much interested in the doctor's paper. The is another method of treating the troubl which the doctor has not mentioned, an which I sometimes adopt in these cases—tha is the touching of the points in the conjun tiva with chromic acid; sharpening a match toothpick or small piece of wood and dippin it in pure chromic acid and touching the points and washing it off immediately wit

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ter. Dr. Ayers, of Cincinnati, thinks at good is accomplished by squeezing the rotarsal fold between the thumb nail of hand and the thumb nail of the other, eezing it to the extent of producing some norrhage, then using the ordinary treatnt. I have used these various remedies self more or less frequently, but my exience has led me more and more to the be- that in educated manipulations is the set of success; that the success of treatment these cases lies largely in the manner in ich the case is handled; that we must be ful in our radical treatment, and careful ur mild treatment, and that to proper chfulness and care will be due our success. use of astringents has resulted very satctorily in my hands. I think the paper directed our attention to an important ject and the doctor has given us some very uable suggestions.

DR. CHARLES BARCK.—I understood the tor to state that the use of astringents, esially strong ones, leads to the formation cars which are larger and stronger than if left alone. I am not in favor of strong ingents, especially nitrate of silver, but I not agree in the statement that astrints used judiciously will form scars.

DR. WILLIAMS.—It strikes me that the doc- has tried to make a distinction between icular conjunctivitis and trachoma and thus fuses matters. I did not understand the tor exactly in his statement of the differial diagnosis between trachoma and follir conjunctivitis. I would like to have repeat the differential diagnosis between two.

DR. THOMSON.—I said very little about the ferential diagnosis between trachoma and licular conjunctivitis. It is a disputed stion; many believe they are one and the ne disease. There are two conditions that st; one is that in which there are aggregans of minute cells, forming small bodies out the size of millet seed, the other is hytrophy of the follicles of the conjunctiva.

DR. WILLIAMS.—As I suspected, the doctor siders them pretty nearly the same thing, and it strikes me that it is only confusing the matter to give it two different names. I am in the habit of calling all these cases trachoma. You know trachoma means roughness, and any condition of the lid which makes it rough is naturally trachoma; that is certainly reasonable, and I consider this condition whether it is trachoma or a follicular trouble, trachoma; I do not try to make any distinction. The prognosis is the same in each case, the treatment is practically the same, and the time required to relieve the trouble is practically the same. So far as the treatment is concerned, the doctor has given the ordinary treatment of these affections, but I wish to say that in the beginning of these troubles I generally use nitrate of silver in a pretty strong solution, not sufficiently strong to destroy the mucous membrane of the lids, but sufficiently strong to stimulate the granulations very materially with a view of causing their absorption. This nitrate of silver solution I use for some weeks in the beginning. Then I follow it with a tannated vaseline, which I always use when I use tannin —tannin and vaseline, which may be used as strong as desired, in fact you may use the tannin pure; it is a harmless application. I follow the use of nitrate of silver with the use of blue stone, which is a very admirable remedy in this class of affections. I use the blue-stone once a day. The less severe the cautic applications the better the final result will be, because violent applications of that kind cause cupping of the lids. Now so far as canthoplasty is concerned I must say I have not used it. I have seen it done but never did it myself, and I do not know that I ever will; I get along very well without it, and certainly an incision in the corner of the lid which grows back immediately to the same position where it was before, does not accomplish anything except very temporarily, if at all. So far as the use of chromic acid is concerned, if used at all, it must be used very sparingly, for if it produces an eschar the result is extreme cupping of the lids.

DR. LOVE.—We have heard a very practical paper read tonight; it is practical from

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the standpoint of the general worker; it has impressed me with considerable interest and a thought has come to my mind when the question of organisms causing this disease was mentioned, whether it is possible that a case of follicular conjunctivitis might result from a congestion, the chilling of the surface, in other words, a cold, the same as we have follicular pharyngitis and an inflammation of the mucous membrane without any reference to organisms at all—strictly a local congestion. Another point to which I wish to draw attention and to emphasize is the application of astringents through the medium of glycerine. I think this is a valuable point, not only in this difficulty, but in every inflamed condition of the mucous surface; in inflammation of the urethra, in follicular pharyngitis, in inflammation of the posterior nares, creating considerable disturbance, I think it is most valuable. I think probably this point has not been fully appreciated. During the past year or two my attention has been called to the value of glycerine as a vehicle for the local application of astringents, and I have been quite gratified with it.

Dr. Thomson.—I did not attempt to enumerate all the remedies that we use in this affection, but confined myself to a few that had given excellent results in my hands. I mentioned none of the minor details in regard to treating these cases, as I did not care to burden the society with matters which everyone knows. I did not refer in my paper to acute follicular conjunctivitis, but to the chronic variety after the follicles have become hypertrophied. I want to emphasize one thought that I meant to express in the paper, that active remedies produce more cicatricial tissue than the mild remedies. Anything that destroys the follicles themselves, increases the inflammation, changes the nature of the inflammatory exudation, causing it to be thicker and the contraction which follows to be greater. Dr. Post mentioned the use of chromic acid. There are conditions in which this may be used with benefit—when we have a few follicles standing out by themselves. In these cases you may burn off the folli or clip them off with scissors.

Dr. Pollak.—I would like to ask Thomson whether he ever used jequirit the Manhattan Hospital?

Dr. Thomson.—I have in my posse the notes of 80 cases in which this re was used. I mentioned it casually in paper, stating, however, that there was objection to it, that it was followed by cicatricial tissue than when other rem are used. I classify jequirity as a remed diseases of the cornea.

SELECTIONS.

THE LAW OF ANTAGONISM.

The Friday discourse delivered at Royal Institution on April 20, on Wa Nature has a special interest for us, be Sir William Grove, who, before he e distinction as a lawyer and a judge, gained lasting fame as a physicist, approa the subject from the physical side. lecturer, whose most valuable contributi science in the past was his exposition of theory of the conservation of energy, set self last week to show that the univer of antagonism had not received the atte it deserved, the element of force having mainly taken into account, and too stress having been laid on the element o sistance. Some aspects of the proble volved in the doctrine of antagonism been appreciated by medicine from the liest times, and to the biologist the ide been familiar long before the phrases "s gle for existence" and "survival of the fi came into vogue.

We may observe at least three forms o tagonism between man and the rest of living world; the antagonism with other dividuals of the same species—the war earlier, the keen intellectual competition later ages—the antagonism with other sp of the higher mammals, which species either seeks to exterminate or to bend u his yoke; and lastly, the somewhat one-

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gonism in which a vastly inferior species ks a superior, where the superior can nothing beyond a mere perpetuation of idual life, while the inferior—the bac- m or helminthic parasite—not only sus- its life, but perpetuates its species at xpense of the higher.

ere is no medical saw more hackneyed that which speaks of the *vis medicatrix rae*; it expresses a well grounded confi- e in the result of the conflict between orces of the body and the external forces h have put it in peril. Socrates in the ublic" (Book III), quotes from the Iliad when Menelaus had been wounded by pear of Pandarus, the sons of Asclepias king the blood from the gash, laid mild les upon it," knowing, says Socrates, t the simples were sufficient to cure men before receiving the wounds were thy." The physician, in fact, played the of Lord Palmerston's "judicious bottle- ler," believing that if he could afford a field and no favor, the "war of Nature" ld end favorably to his client. This is, ct, the attitude of the scientific physician very age. Much of the advanced surgery e day is based on a profound conviction e greatness of the *vis medicatrix naturæ*. , for instance, the operation of abdomi- section for purulent peritonitis. The of the peritoneum have been defeated in conflict with the forces of disorganiza- ; by removing the accumulated morbid etions the surgeon seeks to equalize the le, and, by diminishing the number of enemies, to give the cells a fresh chance estroying those which remain. An emi- ovariotomist has suggested that the plan ashing out the peritoneum with large ntities of tepid water was successful be- e it broke up the dead tissue, which ht become the seat of deoomposition, into roscopic scraps, which the active perito- cells could destroy. The surgeon relies n the power of resistance of the perito- m, and thus affords a practical illustration he advantages which may be gained by leaving the principle of antagonism to work itself out.

Man, in common with all other living—and, Sir William Grove would add, inanimate—things, has to contend also with the forces of inanimate nature, and it is in this conflict that the good results of antagonism, not altogether beyond recognition in the other conflict, are most easily perceived. It might not have been easy to foresee that the conditions of life on these islands should have been so peculiarly favorable to the development of the human race; yet they have produced the dominant race of the world, at an epoch when the struggle for supremacy is the keenest.

There is, in fact, a mean between the external conditions belonging to the class generally reckoned unfavorable and the internal powers of resistance, which gives as a resultant a state of health and energy of mind and body far better for the individual and for the race than that produced under conditions at first state more favorable. A question of surpassing interest is, why under the most favorable circumstances this balance cannot be long maintained, and why the period for which it can be maintained is approximately the same in each individual of the same species, though so widely different in different species? Why do we grow old? We make shift to say when, and where, and how we grow old, but not even Professor Humphrey can tell us why. The conditions which govern the duration of life in various species have never been made out; the bulk of the animal may have some influence, since a large animal will, *cæteris paribus*, require a longer time to secure the surplus of nutriment required for reproduction, and the degree of structural complication will also tend to fix a minimum time, because it also will have a share in determining the time at which reproductive power is attained. It is no explanation to say that Nature takes no thought of the individual, but merely provides for the perpetuation of the species; this is merely to express the facts in anthropomorphic terms. We are driven to adopt the colorless view

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that the duration of the life of the individual is determined by its innate power of resistance to external forces. Where the external conditions are extremely unfavorable, the reproductive powers diminish, and so contribute to the disappearance of the species; where external conditions are so favorable that the species not only continues, but increases, still the individuals succumb to the antagonistic forces, the only conclusion to be drawn is, as has been recently pointed out by Weismann and others, that, in the words of a writer in *Nature*, "the occurrence of death at all is a provision to secure the greatest possible number of individuals of full strength. * * * Death makes room for new complete individuals."—*Brit. Med. Jour.*

ACROMEGALY.

The oddly-sounding name "acromegaly," for which we are indebted to Marie, designates a morbid process the nature of which is ill understood, but which is evidently something widely different from myxedema and osteitis deformans. In the *Lancet* of last week will be found full abstracts of some cases of this newly recognized disease reported by Mr. R. J. Godlee, Dr. H. Hadden, Mr. Ballance and Dr. Wilks. The leading feature of the affection is a hypertrophy of tissue of more or less definite distribution—a sort of "sprouting" of the hands, feet and face. Around this central characteristic many outlying and somewhat isolated symptoms abound; but the relationship which the various phenomena bear to one another is at present a mystery. We propose to examine a little in detail the nature of the overgrowth, and the kind of subordinate symptoms.

The hypertrophy involves the hard and soft tissues of the hands, feet and face, but perhaps in most cases the overgrowth is greatest in the bones. In singular contrast to the enormous enlargement of these peripheral parts, the forearms, arms and legs preserve their normal size, or only increase in bulk to a slight extent, as in cases described by Friedreich. The lower part of the face undergoes most enlargement, so that the outline of the face has an ovoid shape, with the widest part downwards, and the greatest vertical diameter considerably elongated. In osteitis deformans the bony overgrowth of the skull is generally most evident in the temples and forehead, thus reversing the shape of the facial contour of acromegaly. Of the nature of the hyperplasia of the soft tissues and bones we require further knowledge; but so far it appears that the increase in the number of histological elements is not accompanied by marked perversion of the nutrition. In Mr. Godlee's case the skin is described as coarse, and the sebaceous glands of the face enlarged. The fatty tissues of the hand appear to be overgrown, but nothing in the nature of an excess of mucus is mentioned in this structure.

In addition to the most important enlargements, there are other deformities of such constant association as to merit decided attention in any attempt to grasp the true nature of acromegaly; the curving forward of the spinal column, the increase in the size of the clavicles, ribs, patellæ, and iliac bones with the remarkable exemption of the long bones from the hypertrophy; the tendency to augmentation of the fibro-cartilages of the ear, nose and larynx; slight deformity of the joints; wasting of muscles; deafness and blindness; macroglossia; preservation of general sensibility; spontaneous pains; a proclivity to varicose veins and hemorrhoids; polydypsia, polyuria, and a cachexia of indefinite character. The skin, as a rule, is described as absolutely unchanged, but we have already referred to Mr. Godlee's case to show that at times this may take on characters suggestive of interference with its nutrition. Nevertheless, in that case, as in all the reported instances, the thyroid body was much diseased. In Dr. Hadden and Mr. Ballance's case the thyroid was atrophied, and yet the definite signs of myxedema, as in all the reported cases of acromegaly, were wanting. The circumscribed blushes of the cheeks were absent in Dr. Hadden's case, but is there not a tendency to over-estimate the importance of

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his flushing of the face in myxedema? Acromegaly affects both males and females between the ages of fifteen and sixty. Disappearance of the menses seem to be a fairly constant symptom, but may have no etiological significance when we reflect how frequently other diseases are accompanied by menorrhea. The disturbed menstruation, generally of menorrhagic sort, is a feature of the previous history of marked cases of myxedema. The absence of pallor or translucency in acromegaly contrasts somewhat with myxedema, but in both maladies fulness of the eyelids and their neighborhood may be observed. Slowness of movement or speech is a symptom of myedema and parslysis agitans, but does not seem to obtain in acromegaly. The long bones suffer in osteitis deformans, but not in acromegaly. Blindness has been observed in a certain number of cases, and this has been attributed, probably with accuracy, to the overgrowth of the pituitary body exerting pressure on the optic chiasm and tracts. The loss of vision in several cases was attributed to opacity of the cornea.

Whilst recognizing the great differences between osteitis deformans, leontiasis ossea of Virchow, myxedema, and acromegaly, it is impossible not to be struck with some similarities or points of contact between these so variously named affections. To our mind the connection between this remarkable acromegaly and the abnormal state of the thyroid observed in almost all of the cases is one fraught with significance. It cannot but be that the trophic agency of the nervous system is in some way or other concerned in the pathogeny of the disease. The tendency of malignant tumors of the thyroid to recur in bone—a fact emphasized by Mr. Godlee—must also be borne in mind. The experiments of Filehne on the influence of the medulla on the thyroid body should be considered, as also the changes in the cortex of the brain following extirpation of the thyroid. But many more, and more definitely ascertained facts will be required before the pathogeny of these morbid processes can be considered to be even on the threshold of a satisfactory explanation.—*Lancet.*

THE PRIORITY OF CHLOROFORM.

A committee appointed by the Chicago Medical Society to investigate the priority of the discovery of chloroform made the following reports:

There are three claimants to the honor of the discovery; Liebig, of Germany, Soubeiran, of France, and Guthrie, of America.

Liebig's Claim.—Liebig claims to have published his discovery in November, 1831. (See *Liebig's Annalen*, vol. 162, page 161).

Soubeiran's Claim.—Soubeiran claims to have published his paper on ether bichlorique in October, 1831, in the *Annales de Chimie et de Physique.*

Liebig shows (see *Liebig's Annalen*, vol. 162, page 161) that the October number of the *Annales de Chimie et de Physique* was delayed in its publication, and that it did not appear until January, 1832. It certainly is evident that it was not published in October, as it contains the meteorological report for the entire month of October.

Guthrie's Claim.—In the January number, 1832, of Silliman's *Amer. Jour. of Sci. and Art*, we find an article by Dr. Samuel Guthrie, dated September, 1831, in which he says, "A bottle and phial contain alcohol solution of chloric ether. The contents of the phial are as strung as I could conveniently prepare them, but not equal to some which I made not long ago."

In October number, 1831, of the same journal, (page 64, vol. xxi) we find an article by Dr. Guthrie, without date, upon a "New Mode of preparing a Spirituous Solution of Chloric Ether," in which he says, "During the last six months a great number of persons have drunk of the solution of chloric ether not only freely, but frequently to the point of intoxication."

We find a notice to contributors in Prof. Silliman's journal, in which he says, "Communications to be in hand six weeks, or when

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long, and especially with drawings, two months before the publication day."

Dr. Guthrie's paper on chloric ether must then have been in the hands of the printer in July or August, 1831. And if people had drunk of his chloric ether for six months it would place the date of his discovery in the early part of 1831.

We therefore conclude that Dr. Samuel Guthrie is justly entitled to the honor of first discovering chloroform, and that the publication of his discovery antedates that of either Liebig or Soubeiran.

Respectfully submitted,

F. E. Waxham,
N. S. Davis, Jr.,
E. Wyllys Andrews.

Dr. W. L. Worcester, of Kalamazoo, Mich., reports (*N. Y. Med. Jour.*) the pathological changes found on post mortem examination of three persons who died of pernicious anemia. In one case the microscope revealed great atrophy of the mucous membrane of the stomach, which was transformed into a fibrous tissue infiltrated with leucocytes, of not more than one-fourth of the thickness of the normal mucous membrane, and in many portions presenting scarcely a trace of glandular structure. Bruner's glands in the region of the pylorus were not affected.

In another case there was very marked atrophy of the mucous membrane of the stomach, with almost complete absence of glandular structure.

In a third case the mucous membrane was greatly atrophied, although the destruction of the glandular tissue was not so great as in the preceding cases. Its secreting power was estimated to be about one-fifth of that of the healthy stomach.

Dr. Worcester also reports a case in which the symptoms together with a microscopical examination of the patient's blood made the diagnosis of pernicious anemia unquestionable. Fowler's solution in three-drop doses was given three times daily and gradually increased till eight drops were taken at each dose in the course of four weeks. Full doses of pepsin with hydrochloric acid were also administered to supplement the deficient digestive power of the stomach. At the end of three months the patient was fully convalescent and progressed uninterruptedly to recovery. Four years later she was attacked with the same trouble of which she died within three months. No autopsy could be obtained.

Obliterated Scale of Clinical Thermometers.—Many students and practitioners are inconvenienced by their clinical thermometers becoming obliterated. I found a good way to renovate them, in the American copying pencils so much used by students. To use them, the scale is to be first moistened, then the pencil is to be well rubbed in. When it has become dry, the superfluous coloring matter may be removed by a soft cloth, when the roughened markings of the scale will be found to retain the color. which will last just as long as the original marking. I hope some of your readers may find this useful.—*Physician and Surgeon.*

The recent issue of the report of the proceedings of the Illinois State Board of Health says, in regard to the physicians of that state: "While there is a total of twelve deaths reported during the past ten years as due to 'alcoholism' direct, there has been only one in the last four years; and of the eighteen deaths from 'overdoses of opiates and hypnotics' during the ten years there has been but one in the last three years. In addition to the amelioration in the conditions of practice as a cause of this result it is only fair to take into consideration also the approved moral status of the profession of the state.

Mr. Quintin McLennan, of Glasgow, writes the *Brit. Med. Jour.*, that he is decidedly infavor of sulphide of calcium with carbonate of iron, generous diet, and locally cleanliness with linseed meal poulticing as occasion demands in the treatment of carbuncle. He thinks the method of resorting to the knife in every case is to be deprecated.

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THE WEEKLY MEDICAL REVIEW.

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ORIGINAL ARTICLES.

TWO CASES OF SURGERY.

BY DR. T. F. PREWITT.

Reported before the St. Louis Medical Society.

I will report a case of tumor which was lo-ated beneath the inferior maxilla in the eck. The diagnosis was very doubtful, al-hough I thought it was an angioma. The tu-or was entirely subcutaneous, and had ex-sted for a great many years. I have no oubt it was congenital, as the patient stated hat it had existed from childhood; it had a oft feel and was lobulated, of the character omewhat of a fatty tumor, and yet I had oubts about its being fatty, and made no efinite diagnosis.

I removed it, and found a mass of blood-essels with distinct sinuses and a great deal f connective tissue, such an amount as to ive it a very firm consistency, and Dr. Bre-er was kind enough to examine it under the icroscope, and found that it was undoubt-dly an angioma.

In the same connection I will mention an-ther case of still greater interest of the ame character. This was a cirsoid aneurism f the head, in a maiden lady 36 years of ge, the daughter of a practitioner of medi-ine. When five years of age she received a low upon the head from a piece of pine lank which fell from the house. The plank truck upon the frontal bone, just below the dge of the hair, but did not cut the scalp. A considerable tumor rapidly formed, which hen it was absorbed, a hard ridge was left. At ten years of age she took typhoid fever, nd during this time the hard ridge swelled out, became softer, and the nurse while rub-bing the child's head noticed that it pulsa-ted, and called her father's attention to the fact which had never been noticed before. It has been very perceptible ever since. Until the last six months the enlarged and tortuous condition of the tributary arteries has been a striking feature. This was in June, 1887. When she presented herself to me May 25, 1887, there could be seen a pulsating swelling commenceing on the forehead, just below the margin of the hair, extending upwards and backwards a distance of three or four inches. Its greatest diameter was about an inch and a half, its surface was somewhat red; it pul-sated and had a bruit on auscultation. Upon palpation the base of the swelling seemed to be the bones, and to the touch there seemed to be an irregular excavation, with ridges projecting above the level of the surrounding bone. It felt to the finger as though the bone was grooved, and I will say that the supra-or-bital artery had become very much enlarged, and could be seen winding in a tortuous man-ner up the forehead. The branches of the temporal artery were very tortuous, centering in a central mass near the median line. Usu-ally in these cases, the tumor is lateral, but in this case it was nearly central. It was a question of treatment. The treatment of cir-soid aneurism has been very unsatisfactory by the usual methods; compression, ligation of the tributaryarteries and measures of that kind have utterly failed; even ligature of the ex-ternal carotid artery has proved totally un-successful, and ligature of the common caro-tid has been very unsuccessful. I think Heineke reports 33 cases in which three only were successful. The fact seems to be that there is a *visa fronte* which amounts to activity of the central mass. The ligation of one of

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the tributary arteries fails to obliterate the mass. In this case I determined to extirpate it, to excise the whole mass. It has been advised in these cases to tie the internal carotid as a preliminary step in consequence of the great bleeding that is likely to occur, or at least, to put acupuncture needles around the mass so as to restrain the bleeding. I did neither of these. I simply commenced the excision of the mass, and with the finger and forceps caught the bleeding vessels, put ligatures upon each, as I went along until I extirpated the entire mass. I have here the mass as removed. But the operation, done more than a year ago, was a complete success, and the patient did not lose six ounces of blood. I will say that I found there was no groove in the bone at all, as I had supposed. It was certainly one of the most deceptive things I have met with. The soft mass of vessels could be depressed, and it felt as if there was a depression in the bone. I saw the young lady two or three months ago, and the wound is scarcely perceptible, with a few little bangs in front it is not perceptible at all.

A CASE OF HEMOTHORAX FOLLOWING AN INCISED WOUND OF THE THORACIC WALL.

BY NORVAL H. PIERCE, M.D., OF CHICAGO.

Read before the Chicago Medical Society, Jan. 3, 1888.

The patient whom I exhibit to you is 19 years old, of healthy parents, and was six months ago in good health.

On July 13, 1887, at 3:30 P. M., while cutting a piece of wood with the stick adjusted against his chest, he accidentally stabbed himself in the third intercostal space, half an inch to the left of the right parasternal line. The knife, which I hold in my hand, presents a sharp blade two inches in length, and half an inch in breadth. After the accident he walked to a neighboring surgery, thinking the wounds of little consequence; but when he arrived the loss of blood externally was sufficient to saturate his clothes, and caused syncope.

The doctor prognosticated death in a few hours, and summoned the patrol wagon. At 7 P. M., or 3½ hours after the stabbing, I was summoned. He had received no treatment up to this time. I found the man in the condition of one who has sustained a very serious loss of blood—pale features, pinched, eyes sunken, and pupils widely dilated, surface cold and clammy, impaired hearing, pulse nearly imperceptible and very rapid, respiration sighing. There was very slight external bleeding at the wound, which was about an inch in length. From an inch above the sternum to the lower border of the liver the right side was dull, but at this time the liver was not displaced. No blood was expectorated. I closed the wound antiseptically, ordered an ice-bag for the chest, warm bottles to the lower extremities, head lowered, whisky, half ounce every forty-five minutes, together with ergot, very little liquids, and absolute rest.

For several days after this his life hung in the balance. The pulse improved gradually, but the anemia persisted, dyspnea arose, together with great restlessness and troublesome insomnia, and the right pleural cavity remained flat on percussion, the lower border of the liver gradually descended, and the heart was displaced to the left, indicating that the hemorrhage was slowly progressing. At this time the advisability of enlarging the wound and taking up the bleeding vessels, or searing the lung with Paquelin's cautery, was entertained. But such a procedure entailed great risk and no small amount of uncertainty, the location of the bleeding point being unsettled. These facts, together with that of the patient holding his own, even in a low condition, deterred operating.

Because of increasing dyspnea I consulted with Dr. Fenger as to the advisability of aspirating, under the existing circumstances, and on July 27, a gallon of dark colored blood was drawn away. This did not cause the dulness over the right thoracic area to disappear, but relieved the difficult breathing and lessened the restlessness and insomnia.

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On August 20 I again aspirated, the lower border of the liver being within an inch of the iliac crest. Another gallon was drawn away. Under the microscope the white corpuscles were not greatly increased. Up to this time the temperature had ranged from 100° to 101° F. Afterwards it fell to normal one or twice, but generally the thermometer registered 100° F.

On September 5 diarrhea set in, and lasted two or three days. Cough developed soon after, with very offensive expectoration. The liver dulness was gradually descending and extreme dyspnea began. As the fluid in the pleural cavity now contained a marked increase in white corpuscles, I decided to perform the radical operation of empyema. On September 23 this was attempted. At this time there was a marked lowering of his general condition. At the time of the incision I proposed removing one or more ribs, but on account of the alarming manner in which he took the ether we thought it best to be as expeditious as possible. The tissues of the seventh intercostal were therefore simply incised, about a gallon of fluid allowed to escape, and the opening plugged with iodoform gauze. At the end the patient was in a state of collapse, brought on, I believe, by the too sudden escape of the fluid. He rallied, however, and the next day a tube was inserted, and the cavity washed with a saturated solution of boracic acid at 100° F., which was repeated every second day thereafter. Fever and cough disappeared on the second day. The washings grew less and less colored, and in a few days the tube was removed.

The case sets forth not so much the innate goodness of conservative surgery, as it does the great tolerance of the thoracic cavity of effusions, nearly if not quite equal to that of the abdomen. It also shows what a great quantity of blood may be lost without death, over three gallons being taken away in as many tempos. It likewise shows that the wound from which such a hemorrhage could issue is capable of spontaneous arrest.

As regards the place for the incision, I would say the seventh intercostal space is too low, as after the first week the movements of the diaphragm interfered with the drainage tube.

As you may see, this slight cut an inch in length, with its attendant disasters, has left its mark. The right shoulder is depressed one inch. The external circumference of the right side is less than that of the left.

Adominal Pressure in Hysteria.—Dr. A.M. Dokman, in a note communicated to the *Russkaya Meditsina* an the arrest of hysterical paroxysms by pressure on the "ovary," points out that the treatment is by no means new, as blows on the abdomen used to be administered by means of iron instruments in the Senmedarski epidemic, and were employed very largely by Goltz as early as 1727. He suggests that, although pressure is made over the region of the ovary, it does not appear that the ovary has much to do with the effect produced, for similar pressure is efficacious where no ovary exists—that is to say, in male patients. He is disposed to compare the effect to that produced by compression of the cartoid artery, which will sometimes arrest a paroxysm, and he suggests that the sudden stimulation of the splanchnic nerves may produce an alteration in the vaso-motor relations, and in this way may cause the arrest of the paroxysm.—*Lancet.*

The *Northwestern Lancet*, April 15, 1888, says that in the vomiting of early pregnancy, lying with the shoulders low and the hips elevated will give quick relief. A linen compress saturated with French brandy, strapped tightly over the gastric region with adhesive plaster, acts mechanicallv in holding the muscles quiet, and will sometimes do wonders in these cases.

Dr. E. R. Palmer, of Louisville. Ky., reports a case (*Amer. Prac. and News*) in which a woman, aged thirty-five took through mistake seven and three-tenths grains of corrosive sublimate. Excessive vomiting and puring followed. "The patient reported herself as being benefitted by the cleaning out."

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J. H. CHAMBERS,
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SATURDAY, MAY 26, 1888.

MEDICAL DEMONSTRATIONS IN THE DRAWING-ROOM.

It is a strange fact, and characteristic surely of a false purpose in the age in which we live, that an attempt is actually being made to define the position of medicine in the round of social entertainments. Hitherto we have been accustomed to look upon disease as a painful reality, and the practice of physic as a serious endeavor to meet and overcome its inevitable evils. In so thinking, it appears, we have been mistaken, and we may now expect to find that neither is incompatible with the ordinary diversions of the drawing-room. A few weeks ago we noticed the keen relish for surgical operations and demonstrations of a like character which is said to prevail among the curious in Parisian society. A feature of the time more characteristic of the absence of sound good feeling it would be difficult to find. Hardly less objectionable, however, though ostensibly introduced by a worthier motive, is the effort which is being made, according to some of our contemporaries, by the National Health Society to inaugurate a system of drawing-room education in medicine and surgery, accompaniad by practical illustrations, in which the audience will participate. Whether we regard this movement as a *bona fide* attempt at popular instruction, or as a new amusement for intellectual circles, we find nothing to say in its favor. However useful it may be to inculate the principles of first aid to the injured and the like, anything like this systematic attempt to show how one may play the doctor for himself—may do with life and limb as the conjuror does with plates or cards—is at once most dangerous and most absurd. It ignores, among many other considerations, the patent fact which is at the foundation of all medical education and practice—viz., that before diagnosis and treatment there must come a wide and intimate knowledge of the human organism and its variations in health and disease, and this is a matter with which drawing-room discourses, however, fully and practically demonstrated, are quite incompetent to deal. There is not, indeed, any section of medicine or surgery worthy of the name which can be effectively handled by this very imperfect process of teaching. On the other hand, the injury which is likely to be sustained by the national health in consequence of the clumsy application of crude principles thus imperfectly taught and understood is considerable. We have become only too familiar with fatal negligence in illness as an error of the sect of the Peculiar People. What the Health Society proposes is practically to develop this dangerous peculiarity among the educated classes by teaching an impossible doctrine of self-medication, over which it spreads the ægis of a falsely so-called sanitation. This is not, of course, the purpose of the new movement, but it bids fair to become its ultimate result. As regards the æsthetic aspect of the question we need say but little. We are sure, however, that there is a widely prevalent opinion on this point which does not favor the project of the Health Society. We are by no means alone in thinking that the free-and easy representation of disease and its treatment in the manner contemplated can only serve to impress most persons with a sense of indignity done to the subjects discussed as well as to decencies of social life.—*Lancet.*

[If we mistake not the "would-be" instructors, in drawing-room education in medicine and surgery, are doctors who are willing to sacrifice the welfare of the public and the honor of the profession to which they belong,

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or the sake of the privilege of advancing heir personal interests by a scheme of clever dvertising under a thin veil of philanthropy.

Now and then good men are induced to end their influence to such generous (?) enightenment of the masses, and it is to these hat we commend the facts and conclusions, vhich point out the inevitable result of such nisguided philanthropy so plainly stated by he editor of the *Lancet*.

It is a lamentable fact that the more we :ondemn such practices, the better their advo-ates thrive. It is a difficult matter to induce people to believe that it is to their interest to ıave any kind of knowledge withheld from :hem. Especially is this true in regard to nedicine. Any statement to the contrary is ıt once attributed to a selfish motive.]

Treatment of Diseases of the Rectum as a Specialty.

In a recent number of the *N. Y. Med. Jour.*, Dr. Bodenhamer says it has always been an enigma to him why the treatment of malformations, injuries and diseases of the rectum have not been considered as much a field for specialism as are the diseases of other regions of the human anatomy. He thinks hospitals and dispensaries should be established for their treatment just as is the case with the eye, the ear, the throat, etc. We quite agree with Dr. Bodenhamer. Specialism is called for wherever either extra skill in diagnosis or operative interference is required.

A perfect familiarity with the anatomy of the pelvis and its contents is absolutely necessary to an intelligent treatment of these diseases, and anatomy is something that is very easily and very surely forgotten unless one has frequent occasion to make use of his knowledge of it.

That diseases of the rectum are difficult of diagnosis is evidenced by the fact that until recent years but little attention was paid to them, and even now many of our best practitioners consider themselves incompetent to diagnose and treat them.

The acute and long continued suffering produced by some of these diseases, and the perfect relief afforded in the great majority of cases makes a proper consideration of them of the first importance. If allowed to go untreated the lives of such patients are made miserable indeed.

Treatment may be delayed too long, as is instanced in a case reported by Allingham, in which an ulcer of the rectum was cured by appropriate treatment, but a train of hypochondriacal symptoms, which resisted all treatment, had been produced by the long continued suffering.

J. R. Lemen.

Foreign Bodies in the Anterior Chamber of the Eye.

There are few operations in ophthalmic surgery that seem easier of performance than that of removing a foreign substance from the anterior chamber of the eye. In many cases by oblique illumination the foreign body can be plainly seen, and nothing seems easier than to make an incision in the cornea and with a pair of iris forceps grasp the substance and remove it. But the difficulties that may arise in the execution of this simple procedure are often quite sufficient to pretty thoroughly test the self possession of the coolest of operators. Especially may this be the case when the substance is partly imbedded in the iris.

The following instance is an illustration: A patient had a piece of steel half a line in thickness and two lines in length to strike his right eye, penetrating the cornea, one end of the steel becoming imbedded in the iris near its ciliary attachment externally. An hour later he applied to a skilful surgeon (whom I assisted) who found the anterior chamber refilled and the foreign body plainly visible.

The patient was placed under ether and an incision was made with a Graefe knife in the cornea along its outer margin; the aqueous escaped, and the iris moved forward against the cornea, imbedding in its substance the piece of steel. An unsuccessful attempt was

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made to catch the steel with a pair of forceps. The corneal incision was enlarged by the use of scissors. Great care had to be exercised on account of the proximity of the lens. Another attempt was made to grasp the steel, but to no purpose; with a Graefe knife an incision was now made at right angles to the original one, that is, from the periphery toward the center of the cornea, and still the steel could not be withdrawn. A piece of iris was now drawn out and snipped off, and the forceps reintroduced, but the steel was not found. The marginal wound in the cornea was again lengthened about one line. The forceps was again introduced and this time the steel was engaged between the blades, but could not be withdrawn without making too much traction on the ciliary body. A Graefe knife was now introduced and the iris in which the steel was imbedded was divided from its ciliary attachment. The lens was pushed so far forward that the knife passed through the ciliary ligament into the vitreous chamber. A few drops of vitreous escaped. The piece of steel was now seized with forceps and withdrawn. The eye recovered; pupil a little eccentric, vision $^{20}/_{50}$. No opacity of the lens occurred, which showed that the capsule was not injured.

Dr. T. H. Bickerton reports a case (*Brit. Med. Jour.*, Apr. 28), in which he successfully removed a piece of glass from the anterior chamber of an eye where it had remained for more than ten years.

In the REVIEW of March 10, 1888, Dr. Charles Barck reported a similar case, except the glass had remained only an hour in the eye.

HYPNOTISM IN MEDICINE.

In a paper read before the Royal Academy of Medicine in Ireland (*Brit. Med. Jour.*), Mr. Foy said that the practical question, "What therapeutic use can medicine make of hypnotism?" still awaited an answer. He did not much favor the use of the remedy, as it was attended with many dangers and was not always reliable in its action. Hypnotic sleep had, however, given rest when ordinary remedies had failed; and in the case of a very hysterical woman it not only diminished the pains of labor, but also protected the lives of both mother and child which were endangered by the patient's acts. On the whole the remedy could not, in our present insufficiency of knowledge of psychology, look for support from scientific medicine.

A number of serious accidents have been reported as occurring in the hands of experts, and should such accidents occur in the hands of physicians, they would be peculiarly liable to censure and to suits for malpractice.

PHYSICIANS CONSIDERED PUBLIC SERVANTS.

About four years ago Dr. H. M. Stone, of Memphis, Mo., was called in consultation to see a woman, a primipara, 32 years of age, who had been in labor for three days. During this time her attendants "had done everything they could," from the application of hop poultices to the administration of not less than two ounces of fluid extract of ergot within forty-eight hours.

Dr. Stone found the patient almost moribund, her pulse was above 120, and other symptoms indicated that there was no time to be lost. He told the attending physician and the family that the forceps were demanded, and they assented at once to their use. The patient was placed under an anesthetic and soon delivered of a living child by the forceps. The delivery of the placenta was very difficult. During the delivery there was a complete laceration of the perineum. On account of the greatly reduced condition of the woman, Dr. Stone advised that she be kept perfectly quiet, and the lacerated part be kept thoroughly clean, and if union did not take place an operation could better be done later. This he explained to the attending physician and the family.

The husband of the patient was amply able to pay for medical services, and yet he has sued Dr. Stone for malpractice, simply because he refused to do the secondary operation without some remuneration.

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The petition filed in the suit states that ıe (Dr. Stone) came to the residence of aintiffs when plaintiff, Sarah H., was in la-ır, and that he there, without permission of aintiffs, and without their knowledge or nsent, cut, gashed and mutilated plaintiff, d with sharp and cutting instruments, and unskilful and careless mismanagement, unnecessarily, carelessly and negligently t, gashed, tore and mutilated said Sarah in r private parts, so that the walls between e vagina and rectum, and between the ex-rnal orifice of the vagina and the anus were oken down, torn open, cut, ruptured, shed and mutilated; the peritoneum was rn open."

Now, this lawyer's statement of the case minds us of the "old-time shot-gun prescrip-ın" that was constructed on the principle at the greater the number of ingredients e greater the chances of "striking the dis-se." The lawyer evidently thought that if ıe patient was not cut she must have been ashed, and in the event that it was proven at she was neither cut nor gashed, then she surely must be torn.

Now every one, who knows anything of stetrics, knows also that perineums have ptured where forceps were used and when ey were not used; when good physicians re in attendance, and when no physicians re in attendance. Dr. N. Guhmann, who ported (REVIEW, May 5) 691 cases of ob-trics, in 150 of which he used forceps, says e worst rupture he has ever seen occurred cases in which forceps were not used. He ys he is positive that the careful use of for-ps lessens the number of ruptured peri-ums.

Dr. Stone was under no obligation to sew the ruptured perineum, and since the pa-nt was able to pay he did right to refuse give his professional services for nothing. ıe old idea that a doctor "must go when he sent for," still obtains in certain rural dis-icts.

Unless this suit is to be decided by an ex-emely ignorant and prejudiced jury there n be no doubt as to the verdict. But the lamentable feature of the proceeding is that Dr. Stone is put to great trouble for which he receives nothing.

THERAPEUTIC EFFECTS OF SULPHUR.

H. Valentine Knaggs, F. R. C. S. London, has contributed a series of articles to the *Therapeutic Gazette* on "Sulphur in Diphtheria." He says that since it is known that small-pox, diphtheria, whooping-cough and other contagious diseases are due to bacteria, which when apart from the living body can be thoroughly destroyed by the vapor or solution of sulphurous acid, it is reasonable to suppose that the appropriate administration of this drug will destroy the microbes in the living tissues.

It is a lamentable fact that while one physician gets most excellent results with a given drug, another may have no success whatever in its use.

Certainly the testimony that has been adduced in favor of the local application of sulphur by insufflation in cases of pharyngeal and laryngeal diphtheria to warrant the belief that it is a very potent remedy for good in these cases. Knaggs has found that its internal use in small, frequently repeated doses suspended in a viscid mixture answers every purpose except in those cases where the membranous inflammation has extended to the posterior nares, and then he uses insufflation as well as giving the drug internally.

The formula which he uses is:

Precipitated sulphur (pure) ℥iss.
Chocolate powder, ℥i.
Cinnamon water (1 in 40) ℥i.
Glycerine q. s., ad. ℥iii.

Mix the powders together in a mortar, then gradually add the glycerine with constant trituration and then add the cinnamon water. Keep tightly corked. It requires shaking before use. Give half a teaspoonful every half hour or oftener. It should be continued at least five days.

Though sulphurous acid rapidly kills all forms of bacteria, it has no action at all on the spores, and for this reason he advises that

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the administration of the drug be continued till all the spores have developed.

He continues as follows: There is a remarkable tolerance of the drug while the bacterial poison remains in the system, but so soon as the poison is destroyed or eliminated, colicky pains and purging occur, as when the drug is administered to a healthy person.

The treatment of phthisis by enemata of sulphuretted hydrogen gas although new in principle, is yet old in theory. There can be no question that its efficacy in this disease should be further tested. The doses ought to be small enough to saturate the tissues without preducing toxic effects.

In his last communicaiion to the *Gazette* on this subject Mr. Knaggs brings a great deal of collateral evidence as proof of the medicinal value of sulphur both pure and in its various combinations as the sulphites and others, and he concludes as follows:

It is my firm conviction that nature, in her extensive utilization of the antiseptic properties of sulphur in the preservation of the tissues and secretions of plants and of the living body, clearly demonstrates to us the value of this mineral as a remedy for diseases originated and caused by germs. When, therefore, the system is bereft of its natural deodorizing constituents, or when the germs of fungoid diseases have, by reason of their rapid growth, obtained the upper hand over them, it certainly behooves us to restore these constituents to the economy, and this we do by the appropriate administration of sulphur.

Chloroform Water as an Antiseptic.

In a recent issue of the *Deutsche Medicinische Wochenschrift*, Professor Salkawski states that for some years he has used chloroform to prevent specimens of urine from undergoing decomposition, a few drops being sufficient to retain its acid reaction for any length of time.

This is a practical point and one of great value to the country practitioner who cannot always examine specimens before they have had time to decompose.

Prof. Salkowski says that chloroform well shaken up with water at ordinary temperatures is readily soluble; and this solution is sufficient to prevent all those fermentations which are dependent upon the existence of micro-organisms, while it has no effect upon the action of unorganized soluble ferments such as ptyalin, and pepsin. Chloroform has a powerful destructive action upon bacteria present. An infusion of putrid meat is made sterile by it in a few hours. It has a like destructive action on the bacillus anthracis and on the comma bacillus.

The Electrical Execution Bill.

The electrical execution bill bids fair to become a law in the State of New York. The *Med. Rec.* suggests that a law be made requiring executions to be less public than they now are. The purpose of this method of punishment is to intimidate others, that they may not commit a like offense, and not to do away "with the criminal privately." Imprisonment for life would as surely protect society from further acts of the offender, and it is not supposed that executions are made for the sake of revenge.

The *Record* says that out of 37 European states, including the 19 cantons of Switzerland, 10 make use of the guillotine; 19 the sword; 3 the gallows; 2 the gun; 1 the garrote; and 1 beheads with the ax.

Puerperal Tetanus.

Our readers will remember an interesting case reported by Dr. Dixon, in the Review of Feb. 25, in which "taking a bath down to the waist, and wetting the hair," two weeks after delivery, was probably the exciting cause of tetanus which resulted in death.

Dr. T. G. Parrots reports a case (*Brit. Med. Jour.*) of miscarraige at three months, in which a small portion of adherent placenta caused the temperature to rise to 102°F. Chloroform was administered, the uterus dilated by the fingers, and the piece of placenta which was partially decomposed, was re-

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moved. Following this the temperature rose to 104°F—but was normal next day. Two days after its removal tetanus symptoms appeared to which the patient succumbed in 48 hours. Hydrate of chloral and frequent inhalations of chloroform were the remedies used.

These cases leave us as much in the dark as ever, in regard to the etiology of this fatal disease.

EDITORIAL ECHOES.

Thirty-Ninth Annual Meeting of the American Medical Association at Cincinnati, Ohio, May 8-11, 1888.

BY I. N. LOVE, M. D.

The report of the standing committee on dietetics before the general session by Dr. E. A. Wood, President of the Pennsylvania State Medical Society was an admirable paper, eminently clear and common-sense in its style, and practically valuable to the profession and public.

Dr. Wood drew attention to the fact that the young science of which he was treating had joined hands with organic chemistry and with physiology, and in this fact there is much hope for the future.

The cook has been grasped by the hand and recognized as a dignity and power in the community.

He was glad to find that the science of food and its proper preparation had entered the schools, and young girls are beginning to be proud of their ability to cook, and to recognize the fact that the humming of the tea-urn is sweeter music than the sound of the piano, and that housewives are learning that a neatly laid table and a clean table-cloth are potent in keeping the men of the family from the grog-shops, and do more good for the cause of temperance than all the orations of professional agitators.

The many friends of Dr. Jno. V. Shoemaker were there to greet him and aid in the securement of his desires. He is one of those from the eastern shore whose admirers on the western side of the Alleghanies are numberless.

If he would only shave off that beard. Some men can afford to show all their face to the world, and he is one of them. Get thee to a "Shavery" John, if thou lovest me!

Dr. Chas. W. Dulles, of Philadelphia, is rapidly coming to the front in the American Medical Association as a careful pushing worker.

Dr. J. C. Culbertson, of Cincinnati, covered himself with glory in every thing that he attempted during convention week. He richly deserved the silver service presented him and much more. His daily edition of the *Lancet and Clinic* was a great success and in every way creditable.

Dr. Joseph M. Mathews, of Louisville, was not elected President of the Association, but he did not miss it very far, and he could not feel other than gratified to find the number of strong friends from every section of the country who rallied to his support.

Drs. Wallace Neff and Chas. Caldwell, of Cincinnati, made many strong friends by their uniform courtesy and kindness to visiting delegates.

Nearly every one approached upon the subject promised to attend the meeting of the Mississippi Valley Medical Association at St. Louis, September 11, 12 and 13. All the Valley states will be well represented, and St. Louis promises them a rousing good time, plenty of solid "meaty" papers and good discussions.

The W. C. T. U., were as usual on hand with a resolutions requesting the profession to discard all forms of alcohol as medicines, which was as usual very promptly and properly tabled.

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The younger element of the Association feel that they were recognized in the selection of one of their ablest and brightest representatives as vice-president, Dr. Frank Woodbury, of Philadelphia.

The American Medical Editors Association did the correct thing when it elected as President for the coming year the best known, and one among the ablest of the fraternity in the United States, the Danbury (medical) newsman Dr. Wm. C. Wile, of Connecticut.

Dr. Victor C. Vaughan, of Ann Arbor, was another western man who earned additional laurels for a paper presented on the etiology of typhoid fever. He took advantage of an epidemic of typhoid fever in northern Michigan to examine the water-supply of a family in which thirteen or fourteen members had the disease. The characteristic bacillus was found in the water, was cultivated, dogs were inoculated with the cultures, and there resulted a disease resembling typhoid fever as known in man, in the febrile movement, the clinical symptoms and the pathology. One of the dogs died of perforation of the intestine. If Dr. Vaughan's experiments and observations are substantiated and supported, conclusions of the utmost importance as to etiology and possibly as to treatment must result.

The *Bishop* of Pennsylvania was there, and he left the impression that taking one consideration with another his life is not a happy one. Possibly his digestion is poor, at any rate he seemed not to be at peace with himself or his surroundings, and suggested the thought "uneasy rests the head that wears the *mitre*."

Dr. A. Y. P. Garnett the President of the Association deserves the thanks of the profession of America, for his wise and thoughtful address, particularly that part relating to the crying demand for the reduction of the number of medical "diploma mills." He submitted a series of propositions for the re edying of the evil of which the following the key note.

"That we use all diligent effort to secure ordinance creating in each state and territo where no such board at present exists, a the District of Columbia, a board of medi examiners, which shall have no connecti with any medical school, and which shall required to examine all applicants for licen to practice medicine in their respective stat territories, and the District of Columbia, that any person who may be detected in pr ticing any branch of the healing art withe a license granted by said board shall be s ject to such penalty as the law may provid

Strip from the medical college the privilege of granting a license to practice medicine, and Darwin's law of the survival of the fittest would obtain, and the wild cat and low grade college would cease to be.

Dr. N. Senn made a very pronounced impression upon the surgical section and in fact upon the entire Association, and justly so.

He made a pistol wound in the abdomen of a dog (having first demonstrated that hydrogen gas could be made to pass the entire length of the gastric intestinal canal from the anus to the mouth,) then injected carefully hydrogen gas from a balloon containing sixteen litres, and established a diagnosis of perforation of the gut, without tedious handling and located the wound and demonstrated the number of openings.

This is one of the most important developments of modern abdominal surgery, and being so simple it is surprising that some one did not think of it sooner.

It is the application of the every day habit of the plumber who tests our gas pipes and locates the leak and corrects the same.

Hydrogen gas is completely innocuous and unirritating and is rapidly absorbed after being injected into any serous cavity or connective tissue.

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SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, May 5, 1888, the president, YOUNG H. BOND, M. D., in the chair. J. B. PRICHARD, Secretary.

DR. F. J. LUTZ.—I have some specimens here which perhaps are not remarkable for their rarity. Before presenting the first specimen I would like to have Dr. Dalton, under whose care the patient was, present the clinical history of the case.

DR. H. C. DALTON.—The patient was sixty-nine years of age, a colored man, who entered the hospital on the 28th, with a wound in the right side just inside the mammary line, about four inches below the level of the umbilicus; the omentum was protruding from the wound about two inches. His general condition seemed to be good; no urgent symptoms, except great pain darting from the wound up through the body. The pain was intense. The pulse was of good character, 80 beats to the minute; respiration was normal. Three hours after his admission into the hospital, at 10 P. M., laparotomy was performed, the incision being made in the median line two inches above the umbilicus extending nearly to the pubes. The wounded coil of intestine was found to be the jejunum, near the ileum. I found three openings, three stab-wounds in the jejunum about an inch apart. These were sewed up with Lembert sutures with iron-dyed silk. I found considerable blood in the peritoneal cavity which was mopped out and the wound sewed up, including the peritoneum, muscles and skin, each suture involving all these structures. The patient did well for six or seven hours, and then grew gradually worse and died, I think, some thirty-one hours after the operation. The intense pain and great restlessness induced me to operate. There was no shock; the pulse was almost normal. I put in a glass drainage tube, and there was a great deal of discharge. When he was put to bed his pulse was nearly as good as when he entered the hospital.

DR. LUTZ.—I would like to ask the doctor what means he employed for cleansing the peritoneal cavity.

DR. DALTON.—I used hot carbolized water, mopping it out with sponges.

DR. LUTZ.—The only reason why I present this apparently very ordinary case, or the specimens obtained at the autopsy, is to emphasize what I have endeavored on numerous occasions to show and to illustrate with pathological specimens in the society, that the penetration of the abdominal cavity is the warrant for performing laparotomy, or in other words, that I believe and am endeavoring to demonstrate by these specimens that in the vast majority, if not in all, the cases of penetrating gun-shot or stab wounds in the abdomen, some important structure is wounded, producing either a hemorrhage which is dangerous and may be fatal, or else producing a wound of some of the hollow viscera, which would permit the escape of the intestinal contents into the cavity of the peritoneum, and thus be the cause of producing a septic peritonitis. Now, an examination will show that there is but a very slight effort on the part of the peritoneum, although there is some attempt at plastic exudation. The wounds, too, are very peculiar in this case. I judge from the nature of them that they were made with some sharp instrument, possibly a knife, which penetrated the cavity of the peritoneum, and you will find here three wounds transverse to the long axis of the intestine. The first two wounds you find in the same line, there being but a slight bridge of uncut intestinal tract and the other is perhaps half an inch upwardly toward the stomach from the first, so that the instrument or weapon which penetrated the cavity of the abdomen cut the intestine in three places, two of the incisions being in the same line, and another higher up. Perhaps the knife was withdrawn and pushed back. I will say the post mortem in this case revealed that the wound of entrance, the wound made by the instrument, was a very small one. I dare say it presented no larger a surface than would be covered in half an inch, and it was very

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properly united both on the cutaneous aspect of the abdominal parietes and on the peritoneal side by catgut sutures. Then the peritoneum was generally inflamed, and in the fornix and pelvis there was, perhaps, a half a pint of dark-looking ichorous fluid. Now, whether that remained after the washing out of the peritoneal cavity, or whether it subsequently escaped, I am not prepared to say. I will say, however, that the wounds in the intestine were air and water tight. It also illustrates the great propriety of flushing the peritoneal cavity after a laparotomy, not only mopping it out by means of sponges, but permitting the water to run into the peritoneal cavity very freely. By that means we accomplish in the first place a cleansing of the peritoneal cavity; we wash all clots of blood out—all foreign material; we assist in checking the hemorrhage, and equally as important a thing is accomplished in the counteraction of shock, which the flushing of the peritoneal cavity certainly does, to a great extent.

The other specimen which I have here is a sarcoma which I removed from a woman on last Tuesday morning. The patient is 27 years old, and has been pregnant seven times. Two years ago, for the first time she noticed a swelling in the right side of her abdomen, which gradually grew larger, but did not interfere with her menstruation, and apparently not much with her general health, except that the tumor became troublesome from its size and weight.

An examination, which was made about a week before the operation was performed, showed that the pelvic roof was perfectly free that the uterus was movable, non-adherent, its axis, however, was very slightly changed anteriorly, the uterine depth was about normal, the tumor itself was movable, in fact, so much so that she said sometimes it fell over to right side and then seemed to pull and give a great deal of pain from the traction which was made on the right side. The tumor extended upwardly, covering the greater part of the umbilical region and right iliac, possibly a little higher up than I have drawn it, and on the right side into the groin, but it could be freely moved entirely over to the left side.

The operation presented nothing unusual. First a small incision, perhaps two and a half inches, was made into the peritoneal cavity for the purpose of exploration, and when it was found that the tumor, as I suspected before, was solid, there being no fluctuation at all, it became necessary to greatly enlarge the wound in order to permit of it being turned out of the peritoneal cavity. There were no adhesions anywhere, and the pedicle was compressed, it was as thick as a man's thumb and contained two very large arteries.

The microscopical examination proves the tumor to be a myxo-sarcoma; and there are no secondary deposits anywhere about the peritoneal cavity. The left ovary was normal. The pedicle was ligated with silk and dropped intra-peritoneally, and the wound was then closed. Up to this time the patient's temperature had not risen above 100½°. The tumor weighs six and a half or seven pounds.

The third specimen, which is a papillomatous cyst, I obtained post-mortem from a maiden lady, 58 years old, in whom no ovarian disease was ever suspected. I had observed her for seven years. Some three years ago she had a violent attack of gastritis associated with peritonitis, from which she made a rather tedious recovery, and about four months ago she had another attack of peritonitis located more particularly in the neighborhood of the pyloric end of the stomach. I will say that this woman presented a cachectic appearance as long as I have known her. Being beyond the age of menstruation, I never suspected ovarian disease because she never complained of anything of that kind. She suffered constantly from free eructations, her stomach seemed to be out of order—she seemed to be suffering from dyspepsia, and I was inclined to suspect that perhaps there was some difficulty at the pylorus. I will say that the abdomen was also very large, so that an examination did not reveal to me the presence of these cysts. After a severe and long continued illness extend-

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ing over more than four months—perhaps five, in the course of which she suffered from general anasarca and ascites, for which I once performed paracentesis, she finally succumbed three or four days ago. I got a post-mortem and found her stomach was absolutely free from any trace of disease. There were no secondary deposits in the liver, or any other organ, but there were growing from both ovaries, papillomatous tumors associated with cysts such as you see here, and in the neighborhood of the ovaries, the peritoneum, both in the cul-de-sac of Douglas and anteriorly, was studded with secondary deposits of papillomata, so thas I question whether, if I had discovered the presence of these growths and had performed an operation, it would have resulted favorably. In other words, I believe that it was one of those cases of malignant disease of the ovary, which would have promised very little to the surgeon by way of success. You know that whilst there is in the minds of many the question of the propriety of operating for malignant disease of the ovary, the results obtained by extirpation of malignant neoplasms are far from encouraging. It is true that in the majority of instances, especially those cases in which a malignant growth of the ovary is associated with cystic disease, are not diagnosticated before the abdominal cavity has been opened. There There are so many difficulties in the way of diagnosticating or differentiating between cystic tumors of the ovary proper, and those cystic growths associated with malignant neoplasm, that in the majority of instances the diagnosis is only made when the peritoneal cavity has been opened, and for this reason, many are operated upon only to succumb. Latterly the statistics of operation for malignant growths of the ovary have been improved somewhat, but like statistics ordinarily, they possess very little value. Each individual operator's opinions are governed by his own cases, and he, perhaps, pays very little attention to what somebody else says about what ought to be done in a given case of malignant disease of the ovary. Now, they occur sufficiently often, and yet no elaborate statistics have been gathered, and no deductions drawn from them like there have been from ordinary cystic tumors of the ovary, such as Sir Spencer Wells has laid down in his unsurpassed series of ovariotomies. Latterly Kohn has analyzed two cases of malignant disease which occurred in the practice of the late Professor Schroder, and his percentage of recoveries is far from being very encouraging; yet I believe that the prospects are not so much of prolonging life, (because that does not come under consideration after you have opened the abdominal cavity,) but I believe the comfort of the patient is better looked after when a malignant growth non-adherent, with no secondary deposits in the peritoneum and neighboring viscera, is removed than if it is left alone. I say intentionally with no adhesions to the surrounding organs and with no secondary deposits. In other words, take a specimen such as this first tumor; whilst I may say that this woman ought to expect the return of the disease, yet I believe that with no adhesions, no secondary deposits that this woman will fare better with the tumor removed, simply because it is a malignant neoplasm, than if it had been allowed to remain in the abdomen and nothing done for the patient.

Dr. Prewitt.—The specimen which I present is a portion of a leg which presents some features of interest. I fully agree with my friend, Dr. Gregory, in the statements contained in his paper, that we ought not to be too free to amputate legs or arms now-a-days, that it is the duty of the surgeon to save legs and not sacrifice them; still there are circumstances under which it is better to amputate the part.

The patient from whom this was taken is a German, 58 years of age, who has had an ulcer on his leg a good many years. The leg was greatly enlarged, a condition of elephantiasis practically, and there are a great many varicose veins, in fact, there was a very unfavorable conditions of things, and only a day or two ago I took it off. The ulcer has healed over, but it broke out again, and I and I felt sure that if I succeeded in holding

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it up it would break out again and we would be obliged to keep him in bed with the leg suspended all the time, the leg was practically useless to the man, so I advised him to have it amputated. He was perfectly willing provided it was taken off below the knee. So I ampntated it below the knee through this greatly thickened tissue, and through an immense congress of varicose veins.

The knee was anchylosed to a certain extent—an extra-articular anchylosis in consequence of long continued flexion of the leg, and the changes which had taken place in the tissues, in the partially flexed condition of the leg, had partially anchylosed the limb so that it could not be straightened, and I did not attempt to do so. The muscles had undergone fatty degeneration, the blood-vessels were involved to such an extents that it was impossible to draw them out to ligate them. When grasped by the forceps the arteries would tear off, and there was no such thing as pulling them out of the tissue. They had to be tied en masse, and the veins had to be tied in the same way. Of course, these large varicose veins bled very profusely. The gentlemen will see, by an examination of the specimen, the changes which have taken place in the muscles, fatty degeneration, and also in the bone. There are osteophytes all over it. It was with great difficulty that I pushed up the periosteum, I could not lift it from the bone; it did not slip up as it usually does in these cases. I had to get an elevator under it and lift it over the osteophites as it were.

Dr Alt read a paper on"The Candy Treatment of Conjunctivitis".

Dr. Wm. Dickinson.—I have but little to say except the highest commendation of this paper, and of the reasons that prompted the writing of it.

The author of the paper to whom allusion has been made, certainly hasmade some wonderful discoveries. I myself have not seen the paper to which these strictures are made. I wish, however, to call attention to one fact, the paper read by Dr. Michel before the State Medical Association ten years ago was confined to the consideration of the use of nitrate of silver, and did not refer at to all astringents. I am very glad that Dr. Alt has introduced this subject in the way he has.

Dr. H. L. Wolfner.—The views expressed in my paper are simply my own. I have been Dr. Michel's assistant for a number of years, and have naturally imbibed some of his thoughts. Even as his assistant, had I found other treatment which did as well as his own or better, I should not have hesitated to make use of it, but I think his teachings are rational, and that rational and scientific medicine are almost synonomous terms.

The doctor speaks of scientific oculists. Now, we know that some of the most scientific medical men are opthhalmologist; and I did not state anything in my paper that was contrary to this fact.

It has become a proverb that doctors are in the habit of disagreeing. and for that reason I stated that oculists do agree on this point, and I ask the gentlemen to show us a textbook which does not advise the use of these remedies in this class of troubles—acute conjunctival affections. I simply mean all acute inflammations and congestions of the conjunctiva, I do not care what may be the cause of the trouble, all of them should be treated exactly alike. I said this in my paper, and I will stick to it. I have statistics and patients to prove what I say.

The doctor claims that nitrate of silver is more valuable than any other remedy in the treatment of acute conjunctival affections and that is very easily explained. I did not explain why this was true, as it would have made my paper too long had I gone into details.

But there is a good reason why the nitrate of silver should be the best of all these remedies in acute conjunctival affections. Solutions of this drug of one, two, or three grains to the ounce are used. As you all know, tears contain a great amount of salt, and when the nitrate of silver is dropped into the eye the irritation will cause a large amount of tears to be secreted, and the nitrate of silver is thus turned into a chloride

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which is inert and does not affect the eye at all, and it is for that reason that patients get well with nitrate of silver. The doctor says I gave as the reason why specialists use nitrate of silver, that the patient gets well, and he thinks that is a very good reason, but later on he states that most of these cases will get well without any treatment, and he knows that to be true.

In an article recently published in the weekly MEDICAL REVIEW, written by Dr. Thomson, reviewing and criticizing my paper, the doctor says exactly the same thing, and his argument is probably more favorable than any I can make.

In this article he says "Dr. Wolfner says that these astringents are used merely be cause the patients get well under their use; what better reason do you want? I do not quote his exact language, "we all know these patients get well, or a certain number of them will abort by the instillation of a solution of astringent." Immediately after that he says, "If the doctor had confined his remarks to acute conjunctivitis and left purulent ophthalmia alone, it would have been all right, as we know these cases get well without any treatment. If these cases get well without any treatment at all, what is the use of putting astringents into their eyes?

Dr. Alt quotes me as saying "that lately antiseptics and caustics are being used in conjunctivitis.' I am sorry that I have not my paper here to read from. I did not say that antiseptics and caustics are astringents. I did make the mistake of putting nitrate of silver in that category. I did not mean that they are astringents, but that they act like astringents when put into the eye. The conjunctiva, of course, is a very delicate vascular membrane, and the experiments which have been made on other vascular membranes explain very nicely how these caustics, astringents, etc., act on the conjunctiva. If we take the mesentery of a frog and place it under the microscope' and place a drop of an astringent on the mesentery, the effect is almost the same as that produced by a mechanical irritant, the vessels are immediately contracted and become so small that they are hardly visible, but within a short time those vessels will dilate and become larges than they were before. So that when an astringent is put in the eye, of course, the vessels are constringed, and then afterwards there will be a dilatation corresponding to the amount of contraction, and for this reason the result we want to obtain is not obtained, since there is a greater dilatation afterwards.

Antiseptics, especially bichloride of mercury put into the eye have the same effect as ten grains to the ounce of sulphate of zinc. They will produce contraction of the blood-vessels certainly, but a corresponding dilatation will take place afterwards. Of course, the object is to kill the microbes which are supposed to be in the conjunctival sac. I do not want it to be understood that I do not believe in the existence of microbes. I believe there are microbes in the conjunctival sac, but I do not believe it is necessary to put bichloride of mercury, or any other antiseptic in the sac in order to cure the disease.

When I wrote the paper I stated that what I said was theoretical, and that experiments were being made to prove this hypothesis. These experiments have been finished, and prove conclusively that what I said in the paper is true. We took two rabbits and in the right eye of one put nitrate of silver, using one grain to the ounce; in the right eye of the other rabbit we dropped a solution of sulphate of zinc, two grains to the ounce. This was continued three weeks, and the rabbits were then killed, and sections of the corneæ made, and it was found that the epithelium of the right eye of each rabbit was thickened at least by half, whereas the left eye was normal. I simply stated the cornea because that is the most delicate part of the front of the globe. The conjunctival epithelium is thickened similarly to that of the cornea. It must be, because both are in the same fluid and for that reason hypertrophy of the conjunctiva occursas it does in the cornea. So this is no longer an hypothesis, it is a fact that these astringents act in this way, they produce hypertrophy of the epithelium, and protect the

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eye against the effect of antiseptics and astringents. The eye is protected; the application to the eye does not irritate it any more, and the patient gets well. So far as producing chronic inflammatory granulations are concerned, I think probably the paper was a little too strong, but then put that together with the constitutional treatment in these cases and it really is not exaggerated very much. If you take a patient who has acute conjunctivitis, who is in good condition of health, and put an astringent into his eye he will probably get well, just as he would get well without the use of an astringent; but if you take a patient who is strumous, who is run down, and put an astringent into his eye he has not vitality enough, his constitution is not sufficiently resilient, and his vessels will not regain their tonicity, and the result is an hypertrophy of the vessels, the vessels become engorged and remain so, and we have hypertrophic granulations.

I do not remember the exact words in my paper, but Dr. Alt has certainly misquoted me. I do not state that all patients get well, that is going a little too far. I did notmean to say that, if I did say it. In reference to purulent ophthalmia the doctor misquotes me, he quotes; "if we follow the treatment recommended the patient will surely get well." I did not say that, but at the clinic we have from 15 to 20 eye patients a day, and you can imagine that among that number we have had quite a number of purulent ophthalmia. It may simply be luck, but it is a fact that these cases have all gotten well.

Dr. Pollak.—Do the cases of real ophthalmia get well also?

Dr. Wolfner.—Yes, sir.

Dr. Williams.—What is the treatment?

Dr. Wolfner.—See that the eye is kept scrupulously clean; do not let a drop of pus remain. In order to do this it is not necessary to syringe out the eye or take a mop, and mop out the conjunctiva. A solution of opium is placed on the lid on small cloths, which are allowed to stay there a minute or two. The cloths are changed very quickly in these cases in order that the cloths may be kept cool. In ophthalmia neonatorum the lids are easily everted. You can not pull the lid down in this condition without everting it, and the child during this manipulation makes some instinctive resistance and the pus is forced out, every drop. This maneuver is repeated several times, and in that way the matter is forced out and mopped off with a moist piece of soft cloth. After that is done the ointment, (cold cream with a little opium in it) is applied to the margins of the lids, and the nurse is instructed whenever she sees the least sign of secretion to remove it gently. This application is repeated in gonorrheal ophthalmia every few hours, cleansing the edges of the lids, keeping them free from pus, applying cooling solutions has a splended effect and patients get well.

Dr. Williams.—How long does it take?

Dr. Wolfner.—I think the average will be between three and four weeks before it is entirely well; there will be very little secretion after ten days of treatment.

Dr. Williams.—What is the object of the opium.

Dr. Wolfner.—We know that opium has the same effect on the blood vessels that it does on the pupil. For instance: it contracts them; then again it is soothing. I do not know how much of the opium is absorbed.

Dr. Dickinson.—Where does the molasses come in?

Dr. Wolfner.—It is not to be used in these cases. It is to be used only in chronic troubles. Of course molasses is an irritant, although it is not a very violent one, and is to be used where an irritant is required. The cases in which I recommend it are those in which the granulations have already disappeared; in cases which are typical ones for the use of jequirity, and it does admirably.

Dr. Pollak.—How do you use it.

Dr. Wolfner.—That depends on the amount of irritation the patient will bear. Sometimes once a day, sometimes every other day, sometimes twice a week. Since my paper was published I have heard from a gentleman in southeast Missouri who got the same treatment from a Professor Gibson, of Phila-

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delphia, fifteen years ago, who recommended it in cases such as I have mentioned, and he finds that it gives admirable results. Although I am not the mouthpiece of Dr. Michel, he has used the molasses since I began to use it, and he said I might use his name as commending this line of treatment, and state that his patients were greatly benefited by it, after the ordinary treatment had seemed to have very little effect.

DR. THOMSON.—In the WEEKLY MEDICAL REVIEW of April 21, I reviewed the article in the *Courier of Medicine* written by Dr. Wolfner, as I thought it was calculated to do much harm. In my criticism I stated that "we have the testimony of the leading men of our day (and there is no higher authority to which we may appeal) that many cases of acute conjunctivitis are cut short in their course by the proper use of astringents." We all know that most cases of acute catarrhal conjunctivitis would get well without treatment, but why should we not mitigate and shorten the course of the disease if remedies will do it?

I further stated that "Dr. Wolfner made a grave mistake in offering the advice of a specialist to the general practitioner to treat purulent and gonorrheal ophthalmia simply by making applications to the outside of the lids."

In Dr. Wolfner's paper he gave no method by which pus may be removed from the conjunctival sac, and the method which he has recommended tonight is altogether inadequate for the purpose. Again I wish to enter a protest against the teachings of his article.

SELECTIONS.

THE USE OF PROPRIETARY MEDICINES BY THE LAITY AND THE PROFESSION.

BY FREDERICK A. CASTLE, M.D., NEW YORK.

The invitation to address you on the subject of the relations of the profession and the public to the nostrums of the day, is capable of elaborate treatment or otherwise, according to the views of the writer and the time at his disposal. There can be no doubt that the subject is one which is well worthy of consideration; but my own feeling with regard to it is that, so far as the relations of the profession is concerned, the less physicians have to do with remedies about which they know little or nothing, the better it will be for their reputation and for the welfare of their patients. So far as relates to their use by the general public, the time has arrived when the influence of the profession, in the direction of repression, amounts practically to nothing.

Some time ago members of the medical profession were much too charitable in lending their aid in giving character to the few nostrums which then existed, and helped, in a great measure, to establish the foothold which this class of preparations long since gained in this and other countries. Like the snow-ball on a mountain's side, those who helped to start it on its course soon lost all control of it, and can only stand, as calmly as they may, and witness the avalanche which it has caused and the destruction which marks its track. Any opinion generally expressed by physicians of the present day, with regard to the harmful character of these articles, is pretty sure to be attributed by the public to a feeling of jealousy; and the more positive the opinion, the more convinced will the layman be that there must be some virtue in the thing after all has been said; or the doctors would not pitch into it so heartily.

There is such general misunderstanding of what constitutes a nostrum, that it appears to me to be desirable, before proceeding further, to explain in some detail the true nature of this class of commodities. As its name implies, a nostrum is something which is the exclusive property of some particular person or corporation. As applied to medicines, it practically embraces in the United States, three classes of articles: Those made by a formula which is patened; those which bear a label, the specific design of which is registered in the Patent Office; and those sold under a trade-mark, which generally con-

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sists of a fanciful title, and which is similarly registered in the Patent Office, and held as the exclusive property of the person who causes it to be so registered. Formerly the number of patented formulas was relatively much largely than at present, but in course of time it was found more expedient to take advantage of the law providing for registering trade-marks. This was for a variety of reasons. In the first place, patenting a formula rendered it necessary to publish its ingredients, their proportions to each other,and often the process by which they were combined. This permitted any person who could improve upon the formula or process, as patented, to do so without peril; it being only requisite that some ingredient be substituted by another. or that some change be made in the method of composition, to evade the text of the patent. The original maker, however, was not so favorably situated, since it became essential that any change that he might desire to make must be similarly protected by patent right. Another reason was the fact, that the publicity necessarily given by the act of patenting a formula enabled many people to know its composition and judge of its merits, entirely irrespective of statements regarding its efficiency as a remedy by those who were interested in its sale. As soon, therefore, as the Government instituted the system of registering trade-marks, by which the person entitled to its exclusive use was protected from its use on the part of other persons, without regard to the exact nature of the article to which it might be applied, we had the conditions established which have favored the development of an enormous business now is, can best be understood from the following statements made before the Committee on General Laws of the Assembly of the New York State Legislature, now in session. The authorities for this statement are manufacturers of proprietary medicines, wha were heard by the Committee as opponents of a bill now before the Assembly, which, if enacted, would require all packages of proprietary medicines to be labelled with the exact nature of the contents, and would, moreover, prohibit the sale of such remedies in this state as had not been approved by the State Board of Health.

According to this showing, in the State of New York there are one hundred and eight manufactories of patent medicines, employing capital amounting to $3,513,430, and putting out, annually, medicines value at $4,339,178. In the whole United States there are five hundred and sixty-three manufactories of these goods, with a capital of $10,620,880, and an annual production valued at $14,682,492. This estimate is, I believe, rather short of the actual facts.

During the year 1886 the number of patents issued (including designs) was 22,392, of which only about two dozens were for medical compounds; 1,027 trade-marks were registered, 191 of them being for medical articles; 378 labels were also registered, 102 of them being intended for articles of a medical character.

As an indication of the proportion which articles nominally intended for treatment of conditions of the throat and nose bore to the others, it may be said that none of the patented formulas were of this character, and but twelve of the trade-marks and two of the labels. It may also be of interest to such of you as have had no occasion for studying the Official *Gazette* of the Patent Office, to listen to the short statements given in that work of the ingredients entering into some of the patented nostrums. Here are a half-dozen or so, taken rather hap-hazard, which will fairly illustrate the majority of them:

"333,746. Medical compound. Rufus G. Gish, Redfield, Kans. Filed May 2, 1885. (No specimens). Claim—The herein-described medicine for the treatment of consumption, etc., consisting of blood-root, dandelion, black cohosh, burdock-root, spikenard, comfrey, bitter-sweet, sassafras, water, sweet yeast, loaf sugar, and spirits about in the quantities given.

"343,660. Remedy for Dyspepsia. Bernard Farley, San Francisco, Cal. Filed March 4, 1886. (No specimens). Claim—The herein described composition of matter

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used for dyspepsia, consisting of senna, manna, Epsom salts, aloes, molasses, cream tartar, ginger, licorice, and red pepper, in the proportions specified.

"347,759. Medical compound. Silas W. Fleming, Steubenville, O. Filed April 23, 1885. (No specimens). Claim—The herein-described composition or mixture of ingredients to form a medicine for disease of the liver and lungs, consisting of the following ingredients: Spikenard-root, rattleweed-root, elecampane-root, ginseng-root, snake-root, sweet-anise root, spice-bush root, yellow parilla, catuip-tops, hoarhound-tops, mandrake-root, liverwort-tops, wild-cherry bark, yellow-poplar bark, white-oak bark, dog wood bark, slippery-elm bark, boneset-tops, spearmint-tops and balm-of-gilead tops in the proportions specified.

"348,854. Remedy for kidney diseases. Nathan C. McCutcheon and Alexander T. Mc. Cutcheon, Springfield, O. Filed January 12, 1886. (No specimens). Claim—The herein-described composition of matter to be used for the treatment of diseases of the kidneys in general, consisting of Scotch ale, scoparius, taraxacum, and celery, in the proportions specified.

"349,591. Medicated lonzenge. Alvah W. Holway, Boston, Mass. Filed August 25, 1885. (No specimens). Claim—1. A tablet or lozenge consisting of sugar, cream of tartar, and acid calcium lactate, substantially as set fort. 2. A tablet or lozenge in which sugar and acid calcium lactate constitute a base, substantially as expressed.

"350 867. Remedy for kidney diseases. Frank E. Chadwick, Rochester, N. Y., assignor to the F. E. C. Medicine Company, same place. Filed April 22, 1886. (No specimens.) Claim—The herein described remedy for kidney diseases, consisting of motherwort, barberry leaf, couch-grass, wintergreen, water and gin, prepared in the proportions and in the manner specified."

We might be inclined to laugh at the polypharmacal character of some of these heterogeneous mixtures, were it not that the compounders were simply following the customs of our ancestors in the medical profession, who seemed to think that the more drugs they could crowd into a dose the more virtue it would possess as a remedy; or had we not in mind one of the medical colleges of this city, whose pupils take from the school a formula which, by its incongruity, serves to establish their alma mater about as effectually as the ear-mark designates the ownership of a stray cow on a Western cattle-ranch.

Of course, the greater part of the largest proportion of nostrums are used by the general public without regard to professional advice, and will continue to be so used, as I have before intimated, despite any efforts that may be made to prevent it. Indeed, there is very good reason for believing that the practice is increasing rapidly, and that many of us will see the consumption of them more than doubled. Whenever the discovery of remedies like chloral, salicin, cocaine, or antipyrin is announced in medical journals, there shortly appear in the lists of trade-marks registered in the United States Patent Office, the titles of nostrums containing one or another of these new agents as ingredients, and, coincidently, the columns of secular and religious papers, agricultural magazines, and board fences take on a new coat of gorgeous colors, rhetorical and otherwise, proclaiming the virtues of these remedies for the various conditions which have been reported in medical journals as capable of being relieved by them. Indeed, few physicians read the current medical journals with closer attention to business probabilities than do some of the leading nostrum makers. This aspect of the question is, unfortunately, without remedy, since medical literature must be as available for one as for another, and physicians will continue to publish the results of their experience without regard to the possible uses to which it may be put. There is no reason, however, why the aid derived from the profession should extend further, nor that physicians should aid by patronage and recommendation to create a market for these wares, in place of articles equally or

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more desirable, and which can be manufactured and sold by any person who has the capital and skill that may be requisite.

Owing to a very general lack of knowledge among physicians of matters relating especially to pharmacy, it has been the aim of many manufacturing pharmacists to create a false impression of the amount of skill which is required to produce even the articles in so common use as those enumerated in the pharmacopeia, and recognizing the fact that, in the case of our older and most used remedies it will be impossible for them to control their sale by the adoption of a proprietary trademark, they spare no opportunity for impressing medical men with statements of their unusual facilities for manufacturing, the uniform and high character of their wares, and extremely unreliable character of other manufacturers, and especially of the retailing pharmacist. If one were to believe all that is said and hinted, it would appear that the manufacturers on a large scale monopolize the wisdom and honesty of the pharmaceutical profession, and that little is left for the retailing druggist. The physician is urged to insist upon having Brown's sugar coated pills and Brown's only, and to distrust any effort on the part of the retailing pharmacist to convince him that his own, or Jones', or Robinson's, are just as good. And just so far as physicians are influenced in their practice by these statements, do they contribute to aiding the sale and consumption of nostrums. It may be the case that, in some exceptional instances, certain pharmaceutical products are, for some reasons, preferable to others known by the same general name but manufactured by other persons; but it will be found that the differences upon which these excellences depend are not owing so much to superior skill as to the possession of patented processes or appliances, or processes which are kept as trade secrets.

I would like, in the way of illustration, to speak of several instances which have come to my knowledge, in which otherwise reputable dealers and producers have attempted to control the sale of valuable medicinal substances, when the titles by which these articles are known have become common property. Two will suffice. A recent instance is that of an Eastern firm, who recognized the money to be made out of lanoline, provided they could induce physicians to prescribe it by another name, for which they hold a trade-mark. They therefore adopted the name agnine, and as such advertise it extensively in professional journals. If they were to advertise it as lanoline, they would be advertising the business of every other drug-jobbing house in the world, and the more they attracted the attention of doctors to the remedial virtues of this substance, the more they would help their business competitors, because there is, so far as I am aware, no patent or trade-mark right connected with lanoline as a title or as a substance. Therefore, it became necessary at the outset to insure that they should get the benefit of their own advertisrng, that they should own some name, and induce physicians to prescribe it by that name and not as lanoline; hence we have agnine.

Some years since an enterprising firm of Western druggists, who devoted a great deal of attention to pushing newly discovered remedies, found, with the aid of an agent on the other side of the Rocky Mountains, an article which had a reputation in the locality where it grew as an efficient cathartic. With a keen sense of business possibilities, they were careful to suppress all reference to the true botanical name of the drug, and, so far as possible, allowed only such preparations of it to come into the market as would give no clew to its source. The remedy proved to be unusually valuable, and the ingenuity of physicians and pharmacists was enlisted in solving the problem as to its true nature. So matters went on for a time—the name by which it was known, like most common names of plants, giving little or no clew to its origin, since the same name is often applied to very different plants and to a very considerable number of them—until one day someone, interested in the subject, got hold of enough of the original plant to serve for

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identification by a botanist, and then, in ker parlance, the game was called, and ere was a row. The botanist was abused e a candidate for the Presidency, and his latives had to take their share of the mud at flew from the firm whose secret was dilged; but not for long, since the latter on discovered that they were only making n for outsiders, and gaining no credit for emselves. Since then other men have got eir own supplies of the crude drug, and ve no difficulty in supplying the market th products quite as satisfactory as the iginal.

To come more particularly to the subject the use of proprietary articles by physiins themselves, it is difficult to understand e disposition shown by many men of repute the profession, to make use of things of ings of unknown or uncertain composition. the case of antyprin, the process for the anufacture of which, although patented, is ell known, it is somewhat different. Like ntipyrin, there are now a number of articles, ed as medicine, of great value, and to be eprived of them would be a great misfortune; it in every case the accurate composition of ese substances is not a secret, and any chem- who chooses to do so can make them as riosities, but not for sale or use. Our pharacopeias give directions for establishing eir purity, and none of them possess the bjectionable features characteristic of the ticles usually protected by trade-mark regisation, since the latter rarely have any defite chemical or microscopical composition which they may be identified, and can ly be judged of by their crude appearances; nally the character of the label on the ckage containing them, slight as it may be, the only guarantee of the nature of the ntents. Therefore, I repeat, it is difficult understand how it is that physicians are illing to use such things or encourage their e by others. That many physicians do so ust be the conviction of those who know nything of the daily experiences of a drugore. It is only a few days since a pharmaist, without mentioning names, told me of a professor in one of the medical colleges of this city, who writes prescriptions for "Green's August Flower," instead of prescribing the offici nal mixture of rhubarb and soda, which is practically the same thing, with this difference, that the latter can be made by any apothecary, while no one but the owner of the right to use the name "Green's August Flower" can make and sell the compound to which this name is attached. Again, the formula of the officinal mixture being published and well known, can be varied by the prescriber to suit the indications of the particular case. Nor is this all. When a physician writes a prescription for a mixture of rhubarb and soda, the apothecary who dispenses under this name a mixture which does not meet the pharmacopeial requirements, does so at his peril; for the laws of this, and of all other states which have laws prohibiting the adulteration of foods and drugs, impose a penalty upon the pharmacist who tampers in any appreciable degree with the composition of remedies for which the pharmocapeia of the United States of America furnishes a title and standard, while there is nothing but the maker's own sense of expediency which regulates the composition of a trade-mark article. The owner of the name "Green's August Flower" may thus make it of rhubarb, potash, and aloes to-day, and of senna and soda, and without the aloes, to-morrow, and so on, according to whatever drug may be cheapest or most available, or as his ideas of expediency may vary.

It is often argued that there are some old stand-bys, as they are called, or certain nostrums made by particular persons, which have been so long in use, or the makers of which are in such good repute, that there is little if any objection to their being approved or used by physicians; but I can appreciate no distinction, and, so far as professional recognition is concerned, there can be none. No physician can have any guarantee that the trade-mark article which he indorses today and which, perhaps, acquires a commercial value for its title largely through the indorsement which he and other doctors have

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given it, will continue indefinitely to justify in its nature the good opinion he had of it at the time his approval was expressed, and no man who appreciates his duty to himself, his profession, or to the public, will give a certificate of the value of something over which he has no control, and which in time may come to be vended on the strength of such certificate, without regard to the nature of the article itself. John Doe, to whom the certificate is given to-day, may be an honest man and worthy of confidence, but if to-morrow he should die, or should fail in business, the certificate becomes a part of his estate and falls into the possession of Richard Roe, who has quite a different character, and less scrupulous regard for the use to be made of this piece of property.

I wish that time permitted me to point a moral by a recital of a few instances in which professional indorsement, given in good faith, has discredited those who allowed their names to be so used, but I will only refer you to the history of Perkin's Tractors, and Swaim's Panacea of former times, or so called Hungarian Wines, and hospitals for the cure of chronic diseases of our own day. Surely, if physicians appreciated the ways in which they exchange their birthright for a mess of pottage in lending their aid to making reputations for proprietary articles, there might be some fewer nostrums, and their skill as physicians would be greatly enhanced.

Do not be deceived by ingenious advertisements in medical journals, the statements accompanying physicians' samples, or that class of advertising circular so commonly announced as intended "for the Medical Profession only." It is true that references to the articles referred to are sometimes—indeed, too often—seen in monographs and journal articles, and that their labels or wrappers often profess to give formulas for their composition. You may be sure that the men who furnish the indorsements are either ignorant or indolent, and that the formulas are frauds.

The maker of nostrums, for all essential purposes, has no more skill and possesses no greater resources than the open manufacturer, and, much as he may boast of his regard fo the good opinion of the profession, it is on the old story of the use the monkey made the cat's paw to get his chestnuts safely o of the fire.—*Med. Rec.*

THE SYMPTOMS, DIAGNOSIS AN TREATMENT OF PNEUMONIA IN CHILDREN.

Probably in no other disease to wh children are subject does the physician m with so many difficulties in making a diag sis, or is so liable to be led into error, as certain cases of pneumonia. When we c sider how insidiously at times pneumo commences, how great a resemblance to ot diseases it frequently bears, the difficul and sometimes impossibility of obtain physical signs, especially at its commen ment, and, if obtained, to determine wheth they represent pneumonia or not—we rea that the physician needs to exercise a hi degree of care in order to formulate a corr diagnosis.

It is the object of this paper to pres such a description of the symptoms and di nosis of this disease as will enable the ph cian to suspect its existence from its c mencement, even without the evidence of physical signs. With this purpose the wr has divided the case into classes according their rational symptoms, giving under e class the differential diagnosis between it the disease for which it might be mista

Class First.—In this class of cases disease is sometimes preceded by malais symptoms of slight catarrh, but it gener commences abruptly. The child seldom a distinct chill, but complains of a sensat of chilliness. In the infant, convulsions ma occur in place of the chill, the temperatur rises quickly, the pulse becomes full an bounding, pain is generally complained of i the thorax, and sometimes in the abdomen, but is seldom of a severe character. There is a dry hacking cough which occurs at inter vals, and becomes somewhat looser as the disea se progresses. There is loss of appetite but great thirst, and generally constipation,

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ile the urine is deficient in chlorides. The
athing becomes rapid, the inspiration oc-
rs suddenly before the expiration is com-
te. The alæ nasi are dilated at each in-
ration, and there is moaning expiration.
e child lies with its mouth open, in fact,
athes mostly through its mouth, and the
sing infant can only nurse for a few min-
s at a time on account of its inability to
athe while nursing. Some even can not
se at all, and have to be fed with a spoon.
e tongue is dry, white and furred in the
ter, and red at the tip and edges. The
ld is restless and peevish, and desires fre-
ent change of position. The axillary tem-
rature is from 103° to 105°, averaging 104°;
piration from 30 to 50, and in severe cases
may reach 80 or more; pulse from 130 to
0. Herpes labialis may appear. The in-
sity of the pulse and respiration is great-
on the fourth or fifth day. The disease
erally terminates on the sixth or seventh
y. In the second stage the child no longer
shes to be moved, and lies in a more or
s drowsy condition. The bright flush of
e complexion and the red tint of the lips
e gone, and the face appears swollen, pale
d anxious. The extremities may be cool
cold while the trunk has a temperature of
4° or 105°, and the respirations may num-
r nearly half of the pulse-beats. This con-
tion is generally found about the third or
urth day. The last stage is announced by
almost uncountable fluttering pulse, and a
reaty, clammy skin. The respiration be-
mes irregular, several short and hurried in-
irations being followed by one or two
eper and at longer intervals. The voice is
st, the child speaking in a whisper. As the
tal issue approaches the child lies in a state
stupor, the lips and fingers become dusky,
e temperature falls, and the pulse is gradu-
lly extinguished. In some cases death is
receded by convulsions followed by coma.
In broncho-pneumonia, which is generally
secondary affection, the dyspnea and duski-
ess of the complexion are generally more
arked from the outset of the disease, and
he fever is not so high as in the croupous
variety. The irregularity of respiration comes on earlier, and rales are heard in both lungs. The inspiratory murmur, instead of being full and expansive, as in a healthy child, is short, obscure, and almost without the vesicular murmur. The expiration is rarely distinct unless the bronchial respiration is fully developed (Condie). The presence of physical signs depends upon whether the amount of lung involved is sufficient to prevent the intervening air-containing parenchyma from masking the signs of consolidation; otherwise there are no physical signs except rales. The average duration of broncho-pneumonia is fifteen days (Gerhardt). In very young infants febrile reaction rarely, if ever, occurs, the pulse is small and obscure, the skin cold and livid, and the limbs are liable to be edematous. The cry is incomplete, and almost always smothered, becoming clear for a moment, but returning afterwards to its altered tone (Billard). The respirations are very rapid. In many cases extremely few or no rales are present despite the existence of severe dyspnea. Percussion may be normal. Diarrhea and vomiting may be present.

The physical signs generally present in pneumonia are crepitant or sub-crepitant rales, a feeling of greater solidity below than above the scapula, which can be perceived before the ear can detect actual dulness (West), dulness on percussion, bronchophony, bronchial breathing, and increased vocal fremitus. The crepitant rale is very difficult to detect in the young child, and increased vocal fremitus, though a sign of great diagnostic value, is rarely obtainable in a child which has not reached its second year. If the whole lung is consolidated there will be absence of both bronchophony and bronchial breathing. Dulness may be obtained in the healthy child if the force used be great, so that in making percussion very little force should be used.

In many cases bronchial breathing in the child differs from that heard in the adult, it being feeble and indistinct, and more like a rough respiration.

Diagnosis.—Most of the rational symptom present in pneumonia may be present in pl

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risy, and where the physical signs are not well marked the diagnosis becomes quite difficult. In very young infants it may be made by the fact that pleurisy commences with violent and continual screaming, the head is thrown back, and there is great apparent pain when placing the child erect. The working of the alæ nasi is also rare in pleurisy, and the child breathes as if holding its chest on account of the pain. West says it may be laid down as a rule, subject to few exceptions, that whenever a child is suddenly seized with symptoms which, while they indicate some affection of the lungs, are yet unattended with the auscultatory signs of pneumonia, and, while it bears percussion on one side of the chest, it cries and struggles on the slightest attempt at percussion on the other, the disease from which it is suffering is pleurisy. The only certain physical sign in the child is displacement of the heart, and if this occurs and is thought to be due to some other cause, an aspirating needle may be introduced into the chest, but care should be taken that it does not enter more than half an inch. Of course, in ordinary cases of pleurisy we would get fluctuation in dulness by the movements of the child, enlargement of the side, etc.; but it is singular how little difference there may be between the two sides in some cases, and if the pleura is full there will be no fluctuating level, while the absence of bronchial voice and breathing would occur both in this condition and in pneumonia of the whole lung.

Pneumonia may be diagnosticated from bronchitis by the expiratory moan and physical signs, but if both of these be absent, by a comparison of the pulse with the respiration. In health the pulse is to the respiration about as 4 to 1, in pleurisy and bronchitis rarely more than 3 to 1, while in pneumonia they are frequently from 2½ to 2 to 1. Henoch says 40 to 50 respirations a minute in young children indicate that the inflammation is situated in the large and medium sized tubes, while above this the indication is that the smaller tubes are affected. In all doubtful cases of pneumonia the urine should be examined, as the absence of chlorides is a decisive sign.

Class Second.—Cases which at their commencement resemble remittent and typhoid fevers. In this class of cases the disease commences abruptly, generally at night, the child awaking out of sleep with an attack like acute indigestion. There are nausea, vomiting and purging, a rapid pulse, flushed face and some fever. The next day the child feels tired and does not wish to be moved or spoken to, and complains of severe frontal headache. The pulse is from 120 to 130, and the temperature (axillary) 103° or 104°. There is generally no more vomiting, but the bowels may move once or twice during the day. On the third day a slight, hacking cough appears, but the child complains of nothing except the severe pain in the head and a languid, tired feeling. The temperature is generally 104° or over, and the pulse rapid and bounding. Examination of the chest either gives negative results, or at the most shows diminished vesicular breathing in the affected portion. The physical signs may continue latent for from four to six days. In a number of these cases I have noticed that there is a daily fall of temperature between 4 and 6 A. M., sometimes amounting to as much as two degrees. This is especially noticeable during the first two days. In some cases, in addition to the symptoms already stated, there is pain referred to the abdomen with evident increase of discomfort on pressure. The tongue is red and disposed to be dry, diarrhea is present, and the child, if old enough, talks in its sleep and may be slightly delirious.

The diagnosis in these cases can not, of course, be made with certainty until the physical signs appear, but it may be inferred from the fact that remittent and typhoid fevers rarely commence so abruptly, nor is the temperature in them apt to be so high from the start; and, further, the respiration in these cases of pneumonia is more hurried in comparison to the pulse. If the expiratory moan be present the inference is made more certain. The duration of these cases is

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ierally a little longer than ordinary cases, y lasting nine days.

ɔLASS THIRD.—In these cases the attack s in with nervous symptoms. There is siderable agitation, with muscular tremors, nolence, delirium, dark red face, glisten- eyes. Or it may set in with convulsions. e child goes into a condition of apathy al- st from the start. The cough may be rt or altogether suppressed. The hurried athing may be referred to the supposed in trouble, or, if it directs attention to the gs, auscultation may give negative results. ddition to these symptoms there may be niting, pain in the head, restless nights, ring in the sleep, constipation, and the d held back on the spine, while convul- ns may occur several days before the pa- nt's death. Even when auscultation will help us the diagnosis may be made in se cases—first, from the extreme high nperature from the outset and its steady ntinuance; second, by the great and hur- d acceleration of breathing, which is un- e the irregular and uneven respirations of te brain disease; third, by the great fre- ncy of the pulse and its regularity; fourth, the absence of persistent nausea and vom- g.

might add another class of cases in which pneumonia is insidious and chronic in its rse, and which occur during the diarrheal ases of children, and especially in the thing child, and are accompanied by vague vous symptoms, general wasting, tumid lomen, etc., and in which the cough is apt e slight.

Prognosis.—Croupous pneumonia between ages of four and thirteen is rarely fatal appears to me that in health children be- en these ages do not use the full powers their lungs in breathing, and consequently r the crippling of a small portion of a g without very much discomfort), but in infant is a very serious disease. Lobular eumonia is more fatal than the lobar vari- y. Unfavorable symptoms are the exist- e of bronchial breathing after the eighth y, the appearance of pemphigus on the face or body (Smith), swelling of the veins of the hand (Trousseau), and an open mouth, with its angle drawn downward and outward (Ellis). The first favorable sign is a diminution in the number of respirations.

Treatment.—Probably in no disease to which children are subject does the physician require to use greater judgment than in pneumonia. While some cases require but the simplest medication, others will tax the resources of our profession to the utmost.

Some writers say that an emetic at the outset will abort or modify the disease. I try to abort it by the administration of quinine and calomel, and believe I have been successful in a certain number of cases. I have found that the result of this treatment resembles in its effects the result of a large dose of quinine when given to break up a commencing cold in the head in an adult. Some patients will be improved the next day, while others, after improving for twenty-four hours, have a return of the symptoms, and still others seem not to be affected. Perhaps pilocarpine may prove more successful, but I have never ventured to use it in the treatment of this disease. The abortive treatment by calomel and quinine can do no harm even if it does no good. I give, on the appearance of the first symptoms, a dose of calomel by the mouth, and a full dose of quinine in a suppository by the rectum, repeating the quinine in about ten hours. If this treatment proves unsuccessful, I commence the regular treatment of the disease, being guided by the symptoms, strength of the patient, and variety of the disease. For the first few days, or until consolidation is well advanced, the patient should always be kept in a semi-recumbent position, or, if carried in the arms, the position changed from time to time. This not only renders respiration easier, but prevents that common occurrence in children—the stasis of fluids in the posterior portion of of the lung, and may consequently limit the amount of solidification. In croupous pneumonia the child's chest should be enveloped in cotton batting, covered with oiled silk. Personally, I have no faith in the water gir-

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dle, or in vesication. If there is much pain in the side, the application of a mixture of equal parts of chloroform and tincture of aconite on a piece of cotton of the size of a quarter of a dollar, held on for a few minutes at a time, will give great relief, and is all that is generally required. If the pain is very bad and the child is strong, the application of one leech may be resorted to; but never blister, as the irritation to the nervous system which ensues at the time and subsequently only does harm. In broncho-pneumonia the application of flaxseed poultices, sprinkled slightly with mustard, is required, and they should be applied both in front and behind, being changed every three or four hours. These poultices should be continued until the skin becomes covered with an eruption, then an oil-silk jacket should be used The poultices may be repeated from time to time if deemed necessary. When the child is robust, the symptoms mild, and the fever not very high, the best treatment is the administration of from eight to ten grains of quinine a day. It the fever is high and the pulse bounding, aconite should be added, the pulse being watched during its administration. In my opinion, there is no medicine which works so admirably as aconite in the pneumonia of childhood, if given at the right time. In administering it, the condition of the pulse should always be the guide. In other cases the treatment may be commenced by a mixture consisting of liquor ammonii acetatis, syrupus ipecacuanhæ, and spiritus etheris nitrosi. As the second stage approaches, the treatment should be slightly changed. The aconite should be stopped, and carbonate of ammonium, and, perhaps, syrup of senega added to the treatment, depending upon how the child is withstanding the disease. Stimulants may be necessary at this stage. The treatment of the third stage consists in the administration of digitalis, camphor, musk and stimulants at frequent intervals. In broncho-pneumonia, without regard to the strength of the child, I commence from the outset the administration of the stimulating expectorants—carbonate of ammonium and quinine—and if the child wi not take the quinine by the mouth, I give i by the rectum three times a day. It appea to me to work just as well as when given b the mouth. When the child is cyanotic, a presents symptoms of suffocation, I have o tained the best results by the administrati of an emetic, followed by a steam bath the use of camphor and stimulants. In c where there are marked nervous sympto which are probably due to the condition the circulatory apparatus, the right heart ing engorged, the venous system full, and capillaries dilated, camphor, digitalis, moderate stimulation give the best resul Where the body is covered with perspirati or the extremities are cold, digitalis is in cated. If the bowels are constipated, ca mel may be given every third day. The lo ering of temperature which follows its a ministration is remarkable in many cases. diarrhea is present it should be stopped once.

As regards fever in the pneumonia of ch dren, it is surprising how well they withsta it, many of them bearing a temperature 104° for days without marked inconvenienc As a rule it is better to leave the fever alo but if it is thought necessary to reduce give full doses of quinine. Do not use a pyrine or acetanilide, as they are too dang ous remedies to give to children suffer from pneumonia. Salicylate of sodium be used if it is preferred, one grain for year of the child's age being given every hours. I, however, use quinine by the tum in does of from four to ten grains. Ge erally two doses during the twenty-four ho are sufficient, the last dose being given abo midnight; but it may be administered l tener if necessary. It usually takes fo hours before its effects on the temperatu are manifest, and in some cases no effect produced until two or three doses have be given, after which two doses a day will b found sufficient. The following abstract wi show its action:

L. L., aged 30 months, suffering fro pneumonia. Temperature reached 104.

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illary) at 1 P. M., December 20th, when a pository of six grains of quinine was en. At 3 P. M., temperature 105°; 5 P. M., °; 8 P. M., 101.5°; 11 P. M., 102.7°. Sup- itory given, 1 A. M., December 21st, 103°; A. M., 100.5°; 1.30 P. M., 102.5°. Sup- itory given, 3.40 P. M., 100.5°; 6.30 P. M., °; 8.30 P. M., 100.5°; 7 A. M., December 22, .5°; 10 A. M., 102°; 12 M., 103°. Supposi- given, 2.20 P. M., 102.5°; 4.30 P. M., .5°; 8.30 P. M., 98°. The temperature af- this did not need any further treatment, disease terminating Dec. 24th.

have thus briefly endeavored to call at- tion to the points to which our treatment uld be directed, but I can not close with- again referring to the value of camphor elieving the nervous condition and rapid piration, and to the value of the steam h—(I use a kettle of boiling water on the ve and a rubber pipe coming from its noz- under the bed clothes, so that the child's dy is enveloped in steam)—in cyanotic iditions and when the right heart is greatly orged. I believe that to a certain extent it es the place of bloodletting in the adult in same condition; and, although it may be ught to be taking a step backward to ommend it, I know of no treatment of the ult, where the respirations are hurried and ting, the face almost black, and the right rt engorged with blood, that gives greater ief than the abstraction of a few ounces of od from the arm, followed by the admin- ation of digitalis and stimulants.—*N. Y. d. Jour.*

STERILITY IN MAN.—In his work on "Ster- y and Impotence in Man," Dr. Ultzmann, Vienna says: "The subject of sexual in- acity in man, arising from impotency or rility, has received scant notice from En- sh physicians and surgeons. Our native desty acts as a powerful check to any at- npt to investigate the mysteries of procre- on, or to determine the causes which pre- nt the begetting of issue. Happily, our ntinental conferes are not the victims of is false modesty, and we are able to obtain from them a great deal of information re- garding Nature's laws otherwise beyond our reach.

"The due recognition of sterility in man is" says Prof. Ultzmann, "of quite recent date. Until quite lately it was generally as- sumed that men capable of properly perform- ing the sexual act were capable of procrea- tion, and in unfruitful mararigeS the fault was usually attributed to the wife, with the result that she only was submitted to treatment, and naturally without success. Since more atten- tion has been given to microscropic examina- tion of the semen, it has been recognized that a potent man is not always a fertile one. Procreative power depends, entirely on the quality of the semen, and it often occurs that the power of copulation is perfect whilst the semen is absolutely destitute of fertilizing properties. On the other hand, it is well known that men only capable of imperfect coition may become fathers, providing the seminal secretion is in a healthy condition."

The various causes of impotency and ste- rility are fully dealt with in this interesting work, and their treatment discussed. The author has dealt with the subject in a true spirit of scientic inquiry, and the results of his investigation may be read with profit by all who are called upon to treat sexual inca- pacity.—*Med. Reg.*

[Dr. Edward Borck, of this city, read a pa- per before the state Society, in which he called attention to the importance of examin- ing the husband for sterility, instead of in- variably attributing this defect to some uter- ine displacement or inflammation in the wife.]

DR. J. H. TRESSEL reports (*Ther. Gazette*) four cases of cystitis in which he used the fluid extract of pichi with excellent results. He gave from ten to fifteen drops every two hours. In one case the patients exceeded the dose prescribed, taking forty drops. This dose produced nausea with a burning sensa- tion about the stomach. In another case, in which ten drop-doses were given every two hours, nausea followed the third dose. The

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intervals between the doses was lengthened to four hours and the nausea passed off. In two of the cases the usual remedies had failed to give relief.

Dr. Robert Boxall calls attention to the fact (*Brit. Med. Jour.*) that corrosive sublimate, which is now more universally used as an antiseptic than any other agent, is incompatible with even a neutral solution of soap.

If this means that we should dispense with the use of one or the other of these agents, we are inclined on general principles to give up the sublimate and use the soap, regarding it more important to remove the microbes than to kill them *in situ*.

Billroth's Views on Antiseptics.—This eminent pathologist writes the following on antiseptics:

1. Iodoform is the safest and most effective of all manageable antiseptics.

2. Moss, wood-turf, mould, and oakum are useful where there are discharges from the wound.

3. Corrosive sublimate in dilute solution is practically inert as an antiseptic to wounds, and renders the patient and surgeon alike liable to mercurial poisoning.

4. Carbolic acid, which is known to be dangerous in strong solutions—is, in very weak ones, as good for wound irrigation as clean water, but probably no better.—*Med. Reg.*

Mr. Auburn Wilkinson writes to the *Brit. Med. Jour.* that in 1875, he was called to a patient suffering from peritonitis accompanied by tympanitis which gave rise to great distress. A hyperdermic needle was introduced into the most resonant part of the abdomen. The relief abtained was marked, and the patient made a good recovery.

Since then he has repectedly used this method in like cases, and in every instance much benefit resulted, and in no case did any untoward symptom follow.

A Writer in the *Pharmaceutical Record* states that he has found no other excipient for the cinchona alkaloidal salts, so satisfactory as the "glycrite of tragacouth", which is made by mixing powered tragacouth one part to glycerine eight parts.

Tea and Teeth.—Mr. W. T. Black writes in the *Brit. Med. Jour.* that at the recruiting stations in the north of England many men were rejected "on account of the great amount of disease and loss of teeth" existing among them.

Upon inquiry he attributed the decaying of the teeth to the excessive amount of tea drinking indulged in by the working classes in manufacturing towns.

"Tea seems to have a peculiar tendency to cause hyperemia in the tooth-sacs, leading to inflammation and, eventually, abscess of the fang, with, of course, dentalgia at every stage. Whether this special tendency was due to theine or tannin having an elective affinity for dentine it is not possible for me to say. It would be curious to know if medical men, practising in such manufacturing districts, had observed the deterioration of teeth to be coincident with tea-drinking."

BOOK REVIEWS.

Essentials of Chemistry and Urinalysis. By S. E. Woody, A. M., M. D., Professor of Chemistry in the Kentucky School of Medicine. Published by Jno. P. Morton & Co., Louisville, Ky.

This work is exactly what it claims to be. It is concise and plain, just such a book as the student would be pleased to work by. The facts presented are brief and clear. The pages devoted to urinalysis are especially interesting; it is just such a concise treatise as an overworked practitioner or an overcrowded student would profit by studying. It is a very neat and interesting little volume. We commend it to the profession.

J. R. L.

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REPORT ON PROGRESS.

GENITO-URINARY DISEASES AND SYPHILIS.

BY BRANSFORD LEWIS, M. D.

I. COCAINE IN LITHOTRITY.

II. BACTERIA IN THE URINE.—*L'Union Medicale.*

III. VESICO-URETHRAL ERETHISM OF LOCOMOTIVE ENGINEERS.

IV. TREATMENT OF SYPHILIS.—*Jour. of Cutan. and Gen.-Urin. Dis.*

V. ANTIPYRIN IN POLYURIA AND DIABETES.—*Le Bulletin Medical.*

VI. METHODS OF DISCOVERING THE POSTERIOR OPENING IN TRAUMATIC STRICTURE.—*Le Bulletin Medical.*

VII. IRRIGATION OF THE BLADDER WITHOUT THE CATHETER.—*Lyon Medicale.*

VIII. PICHI IN AFFECTIONS OF THE URINARY PASSAGES.

IX. FRENCH PUBLIC PROPHYLAXIS OF SYPHILIS.

X. URETHRECTOMY.

COCAINE IN LITHOTRITY.

In the *Lyon Medical*, March 25, 1888, Dr. H. Philip gives the results of his experience in the use of hydrochlorate of cocaine in the performance of lithotrity. A patient of advanced age, in a condition generally unfavorable, whose urine contained sugar and albumen, was the first case. For the removal of the stone, cutting was evidently dangerous; anesthesia—indispensable because of the irritable condition of the sacculated bladder—by chloroform was greatly to be feared, as the aged man had before had a light attack of apoplexy; and, too, his heart functionated badly.

Lithotrity with local anesthesia produced by cocaine, answered all expectations, and in three séances about 20 grammes of broken-up phosphatic and uric acid calculi were washed away. The patient derived great benefit from the operation during the next four months.

In November 1887, urination again became frequent, and the doctor was able to establish the presence of another stone in the bladder. The previous objections to the employment of chloroform anesthesia were still in force, and as in the first operation, not the slightest complication, the least illness, either from the operation itself or from the cocaine, had resulted, it was determined to use the same plan again. But, to satisfy himself of the advantages furnished by the cocaine, the first séance was begun—but not finished—without its aid. The pain was intense, and for eight hours following the procedure abundant polyuria existed, and left the patient in a state of prostration for twenty-four hours.

In the succeeding séances, nothing similar was to be observed. Cocaine anesthesia was used, and gave results all that could be desired.

The method used is first to empty the bladder. In 40 cc. of water 3 grammes of cocaine are dissolved: by means of a gum catheter, 30 cc. of this solution is to be deposited in the bladder; then withdrawing the end of the catheter to the membranous portion of the urethra, the remainder of the solution is slowly expressed, Precaution must be taken to have the fluid at a comfortable temperature to prevent its exciting contractions, causing its expulsion.

The solution is next made to come in con

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tact with all parts of the vesical walls by slowly turning the patient on all sides. After eight or ten minutes, the bladder, which before would not tolerate the presence of more than 40 or 50 cc. of water, receives the quantity of liquid necessary for searching for, and grasping the calculi, without giving the slighest painful sensation to the patient.

Precautions against the possibility of poisoning from absorption are always to be taken, though as yet, no such complication has occurred.

In those cases thought to be favorable for absorption, the minimum strength of solution giving efficiency is used; the patient is kept in the horizontal position; the organs in which the first symptoms of poisoning manifest themselves,—head, digestive tract and heart—are closely looked after.

Clinical and Experimental Researches on the Presence of Bacteria in the Urine.

Our confrere, Dr. A. Berlioz, has chosen as the subject of his inaugural thesis, one on which he is particularly well prepared to write, because of his researches in the laboratory of Prof. Cornil, and at the clinic of Prof. Jaccoud.

M. Berlioz, after having mentioned the bacteria that are met with in normal urine, passed in review the diseases in which the presence of bacteria in the urine and kidneys is observed; and gave the results of his studies of the same in connection with experimental diseases, from which he formulated the following conclusions:

1. In infectious diseases in the domain of human pathology, it is exceptional to establish the presence of the pathogenetic agent in the urine.

2. When it is present, the facility of the passages of the bacteria through the kidney is proportionate to the severity of the lesion of that organ.

3. Bacteria are, in most cases, the cause of the nephritis observed in the course of those diseases.

4. The belief that there is elimination of the micro-organisms by the urine in the critical period of the diseases, in a general way, should not be recognized as correct.

5. In experimental diseases, if one often observes the passages of microbes in the urine of animals, it is the result of the condition in which the animals were operated upon, and is rarely met with in the clinic.

6. The establishment alone of bacteria in the urine of animals is not sufficient; it is still necessary to make cultures and injections of the culture fluids.

Vesico-Urethral Erethism Peculiar to Locomotive Engineers.

In the *Jour. of Cutan. and Gen.-Ur. Dis.* for May, Dr. J. B. White describes a disease which he claims has not before been recorded in literature. It is peculiar to locomotive engineers, and manifests itself by such symptoms as frequent desire to urinate intensified in many cases to such a degree that painful incontinence exists; urination is accomplished with difficulty and is frequently followed by pain in the back, in the course of the ureters; sensation of weight in the bladder, etc.

Regarding the cause of the disease the author explains that engineers are in the habit of sitting, during their work, astride of a narrow, hard seat, thus allowing of the direct transmission through the perineum to the neighboring portion of the urethra and the neck of the bladder, of the vibrations, jolts and shocks of the engine. This produces a constant erethism of the organs named, and symptoms resembling those of stricture or cystitis follow. A rational treatment—removal of the cause—quickly affords relief without the necessity of the patient's stopping work.

Advances in the Treatment of Syphilis.

Neisser gives the following injunctions:

1. Every local infection suspected of being syphilis must be destroyed by energetic local

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treatment as early as possible, or removed by deep incision. If there is no syphilitic infection present, the slight operation is at least harmless, and if syphilis be present, it may undoubtedly be removed once and for all by excision.

2. Well marked primary lesions should be deeply excised when their situation permits of it, as, in the author's opinion, complete cure of the syphilis may thus be brought about.

3. Constitutional treatment must be one of mercury; must never be begun before the diagnosis is firmly established; must never be considered as completed before the fourth year of the disease.

4. The most agreeable and convenient mode of administration is the internal method.

5. The surest, most rapid and efficacious method is that of hypodermic injection of the drug. Inflammatory tendencies are reduced to a minimum by suspending the calomel in oil.

Antipyrine in Polyuria and Diabetes.

In the Society de Therapeutique, Paris, M. Huchard recently reported some rather remarkable results from the use of antipyrine in the above affections. When consulted by the first case, the patient was passing 28 liters of urine in 24 hours; at the time of the report, after the course of antipyrine, the daily amount had been reduced to three liters (50 ounces). To test the real influence of the antipyrine, it was replaced at one time, by ergot of rye. Immediately the amount of urine jumped up to eleven liters for the following 24 hours, sixteen for the next, and eighteen for the next. Directly upon substituting the ergot by antipyrine, the quantity fell to nine liters, then successively eight, seven, and again three liters. At the time of reporting the drug had been discontinued for four or five days, without recurrence of the polyuria. An oppressive attack of dyspnea, which lasted for two days before he saw the case, was also cut short, and did not return. The explanation of the medicine as given by Dr. Huchard was that it acted as a sedative to the bulbo-medullary excitability.

In a second case in which the quantity of urine was reduced from six to three liters in five days, acetanilide was substituted once, with the result of increasing the flow. A return to antipyrine reduced it to four liters.

The third case was a diabetic who passed the enormous quantity of eight hundred grammes of sugar per day. On the 17 of March, he passed nearly eleven liters of urine —non-albuminous. On March 21, after the administration of six grammes of antipyrine, he passed nine liters, and on the following day, three liters and ninety grammes. On March 25, an analysis gave 63.66 gm. of glucose per liter, or 271 gm., in the 24 hours. No special regime had been carried out.

M. Dujardin-Beaumetz said that with two grammes of antipyrine, he had obtained a reduction in glycosuria more remarkable than in the cases related by Dr. Huchard.

And Dr. Albert Robin had told him of having observed, after a dose of four grammes the total disappearance of diabetes, without special regime, in the space of from five days to three weeks, in the patients that he had treated. But at a certain time in each, he had noticed the appearance of albumen, which constituted a grave symptom, he thought.

Maneuvers for Discovering the Posterior Opening in Traumatic Stricture.

In the Societe de Chirurgie, Paris, M. Tillaux related the following method used by him in gaining entrance to an impenetrable traumatic stricture.

A man fell astraddle of some hard substance, from which there resulted extravasation of urine, fistula and stricture. External urethrotomy failing to disclose the posterior opening of the urethral canal, supra-pubic cystotomy was resorted to, after which a finger introduced into the bladder directed a metallic sound into the urethra. This was

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then made to project into the perineum and acted as a guide for the operation of external urethrotomy.

M. Despres made the suggestion that a certain method of finding the canal, in operating externally without a guide, was to cut transversely. M. Schwartz related that in such a case, he had pushed a trochar directly through the prostate to the bladder, using a finger in the rectum as a guide. He afterwards passed a sound through the artificial canal. The patient recovered. M. Le Dentu had used for some time the method of Demarguary, which consisted in searching for the tip of the prostate behind the stricture; there the membranous portion is found, in which an incision from behind forwards to the stricture is made.

M. Le Fort had used with success, in his search for the posterior opening, the following method: The patient was given iodide of potassium and after some minutes when the salt had passed into the urine, there was placed at the point where the fistula was thought to be located, nitrate of lead. The moment urine exuded, a spot of iodide of lead marked exactly the site of the opening. He had been enabled to find, easily, the orifice of a vesico-vaginal fistula, which he had been unable to discover without that means.

Failures in the Use of the Method of Irrigating the Bladder Without a Catheter.

M. Laraux some time ago advocated the washing out of the bladder in cystitis without the use of a catheter, by plugging the meatus with the nozzle of the syringe and forcing the fluid through the urethral canal into the bladder. Dr. E. Desnos recently recounted to the Societe de Medicine de Paris, the histories of four cases in which that method was employed, and in which the frequency of urination, pain and amount of purulent discharge were all increased, giving evidence of redoubling of the inflammation. He thought that the pressure necessary to force an entrance for the fluid into the bladder was sufficient to cause irritation and the subsequent bad symptoms. He concluded that the procedure was therefore not applicable to all cases, and left for future investigation, a decision as to its indications and contra-indications.

Nylanders Test for Sugar.

℞ Bismuth subnitrat. gm. 2.
Sod. tartratis 4.
Sol. sodæ causticæ 8% 100.

Misce. Allow to settle 24 hours and filter through cotton. To ten cc of urine in a test tube, add one cc. of the reagent, and on heating, if sugar be present, a black precipitate will be formed.

Pichi in Affections of the Urinary Passages.

In a paper on the use of pichi in urinary derangements, *Journal de Medecine*, April 22, Dr. Le Menant des Chesnais is lavish in his praise of that drug. Two cases are cited, the histories of which clearly show the great benefit derived from a resort to its timely assistance. Both were cases of cystitis with purulent ammoniacal urine, almost constant desire to urinate, depletion, etc., all of which symptoms were rapidly dissipated by the employment of pichi, although, in each, all approved plans of treatment had previously been tried.

Resolutions of the Academie de Medecine Relative to the Public Prophylaxis of Syphilis.

1. The Academy calls the attention of the authorities to the open solicitation that is being carried on in the public streets, more especially of late years, and demands its energetic suppression.

2. It believes that there is manifest necessity for repressing, that solicitation in the street, the various modes, not less dangerous though concealed, such as that of the shops; that of the brew-houses "for ladies"

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and more particularly that of the wine ops.

3. It points out to the authorities a custom t less efficient in provocation, that lurks out the lyceums and colleges and invites inors to debauch.

4. These diverse methods of temptation ve, as a consequence, the dissemination of philis. The Academy, therefore, demands the name of the public, a sanitary law giv- g administrative intervention, particularly th regard to minors, requiring the suppres- n of solicitation wherever it shows itself.

5. The safety of the public health demands at women who live by prostitution shall be gistered and subject to visits of sanitary icers.

3. If the registration is not consented to by women on whom it is imposed by the ad- nistration, judgment shall not be pro- nced upon her except by the judicial au- rity.

7. Every such woman who shall be found by edical examiuation to be affected with a ereal disease shall be confined in a special itary asylum.

3. Registered women shall be subject to a ekly visit and examination, searching and nplete.

Hospital Regulations.—Treatment.

). The number of beds used for the treat- nt of venereal cases is notoriously insuffi- nt, it must be increased in the proportion nd necessary by an open investigation into t subject.

0. The increase into the number of beds venereal cases is to be made, not by the ation of special services in the hospitals, rather by the creation of new special hos- ls.

1. The proper medicines for the treatment venerial patients shall be delivered gratui- sly, to all the hospitals, special or general.

2. A free consultation service, with free very of medicines, shall be annexed to special sanitary asylums, destined for the tment of infected prostitutes.

3. In every village of the province, at t in each county-seat (chef-lieu) of the department, there shall be created a special service for the treatment of venereal affections, and the place of location of such service shall be managed according to all the rules of hygiene.

14. It is recommended that all veneral clinics (including those of St. Lazare), receiving as many as sixteen inscriptions, be thrown freely open to every medical student.

15. It is desirable that there be exacted of every aspirant for the degree of medicine, before the acceptance of his thesis; a certificate of the length of his attendance on the venereal clinics.

Syphilis in the Army and Navy.

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16. The rigorous execution of military rules is to be assured, notably those which concern the visits of the health officers, and the search into the seat of contagion, and the abandonment of every disciplinary measure with regard to the soldiers affected with venereal diseases, must be observed.

20. The endeavor should be made to combat the progress of clandestine prostitution, on the one hand, by enlightening the soldiers as to the dangers of that special prostitution, and on the other by demanding of the assembly of civil anthorities the purifying of certain sources of contamination, whether in cities (wine-shops) or around the camps.

21. Assurance must be given to syphilitic soldiers, the treatment of whom has been commenced in the hospital, that there is a possibility of their remaining in the corps, and under the direction of the surgeon of the regiment, of receiving the final treatment necessary to their recovery.

22. Concerning the Navy, it is desirable that on board the ships of war a medical visit be made before the arrival in each port, in order to interdict communication with the land, of men who are comtaminated, each time that the continuance of the voyage renders that measure necessary.

23. It is absolutely essential that in all seaports, especially in all the large ports of war or of commerce,a regular and rigorous service

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be instituted for the servillance and medical care of prostitutes, with a view of preventing the infection of sailors, which frequently occurs curing a disembarkation, and that the women found affected may be treated in the hospital until their complete recovery from transmissible disease is attained.

Urethrectomy.

Concerning this operation, M. Poncet, of Lyons says: "The resection of a portion of the urethra, followed by reunion of the two divided ends, is a good operation, which finds its indications in the strictures with peri-urethral, fibrous induration surrounding the urethra like a ring, with a mass of perineal cal lus, etc. In nine cases operated on by me, with those conditions, I have had neither death nor grave accident. In three I obtained complete reunion by first intention.

After many months, the result was perfect: one could find no trace of induration in the perineum, and a No. 20 bougie passed easily. In six others, the union was accomplished by granulation and they left the hospital after same weeks.

The final result of the operation is better than that of external urethrotomy, especially when primary union is obtained.

The calibre of the canal is maintained, and some months after the operation, the seat of the stricture can hardly be found by catheterization. Instead of the stricture there has succeeded a linear ring, the least bit retractile. When union by second intention takes place healing requires several weeks, and if one wishes to maintain a sufficient calibre at the urethral portion of new formation, daily catheterism is necessary.

Dr. John B. Roberts of Philadelphia is a thorough believer in aseptic surgery. He says a new clean scrubbing brush, such as is used for floors, would be perfectly satisfactory for cleansing the skin of patients preparatory to surgical operations.

We are inclined to think that a clean towel will answer the purpose quite as well and be less likely to remove the cuticle.

ORIGINAL ARTICLES.

ON THE "CANDY" TREATMENT OF CONJUNCTIVAL AFFECTIONS.

BY ADOLF ALT, M. D.

Read before the St. Louis Medical Society, May 20, 1888.

Mr. President and Gentlemen.—Before reading the following I wish to state that this paper is in no way prompted by any personal feeling, and that I want it thoroughly understood that I am not attacking men, but what I think perverted science.

In the April number 1888 of the *St. Louis Courier of Medicine*, Dr. H. L. Wolfner, assistant to the ophthalmic department and lecturer on the use of the ophthalmoscope St. Louis Post-Graduate Medical School and Polyclinic, publishes a paper, which has probably been read by a great many of you, entitled "Criticisms on the Present Mode of Treating Conjunctival Affections, with Suggestions for the use of a new Remedy," which I would surely have let pass unchallenged if some statements contained in the paper did not make it appear at least as if the author was only the mouthpiece of a gentleman whose name in this community is too well known, and whose authority might therefore, be too weighty to allow this matter simply to be overlooked.

When I wrote the title of this paper, I did so on account of the new remedy for treating chronic conjunctival affections which the author recommends, namely, molasses. Although for all I know, it may be an excellent remedy, and although the criticising author got it by hearing of a quack who used something that looked like it, yet, the very thought of using "molasses" in the eyes appeared to me to be so ludicrous that for the time it overpowered all other impressions left in my mind after the perusal of the author's paper. I saw before me a whole waiting room full of patients with chronic conjunctival affections, on a hot St. Louis summer day, their eyelashes shining

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ned together with the sweet stuff, and the es buzzing about and trying to get a taste. Yet, let alone these funny ideas! The ob-ct of my paper is a considerably more ear-st and important one, since it will deal th teachings sent out to the general prac-ioner on authority.

The paper above referred to has for its ob-ct, as stated in its introductory lines, "to iticise the present mode of treating acute njunctival affections." It goes on to say: "In looking over the text-books and mono-aphs written on this subject, it will strike en a casual observer as curious that oph-almologists should all agree to use the ne remedies in the treatment of acute con-ictival affections."

A queer criticism, indeed. Why should t all ophthalmologists use the same reme-es in any given disease, or for that matter, doctors, provided that the remedies be od ones? And do we not all, even the thor of the paper, do this very same thing stinually?

This criticism, however, poor as it is, must pear the stranger since, as far as my owledge and experience go, it is not the se, as the paper has it, "that the list of the nedies used by all oculists in acute con-ictival affections begins with sulphate of c or boracic acid, and ends with nitrate of ver, and comprises all therapeutic agents mmonly known as astringents."

In the first place, every ophthalmologist o has not come down to the level of a chanic, individualizes his cases, and ac-ding to his experience treats every case on own merits. In the second place, what es the paper mean by acute conjunctival af-tions? As it later on appears, it includes ery form of acute conjunctivitis, from a mple hyperemic condition to the gonorrhea the conjunctiva—a large field, indeed, to covered by one remedy or one method of atment, which, as we will see later on, the per recommends. In the third place, in al-st all the text-books I looked over, and by are a goodly number, nitrate of silver is chief remedy recommended in acute ca-tarrhal conjunctivitis and blenorrhea. In the fourth place, nitrate of silver is not usually classed as an astringent, but as a caustic.

The paper, therefore, throws diseases and remedies of a very different character into one pot, giving the casual reader the impression that oculists, as a class, are not a very scientific body of professional workers. Against this idea I want to enter a most emphatic protest. Of course, there are ophthalmologists and ophthalmologists, but as little as it discriminates with regard to diseases and the usual remedies—as little does this paper discriminate between the mechanic and routine worker and the large class of honest and honorable workers. This latter class the paper tries in the eyes of its readers to belittle by any means, in order to gain the more for its own recommendations of a yet much more indiscriminate cure-all.

The paper evidently hits us other ophthalmologists the hardest, at least in the author's intention, when it fires at us the following remarkable shot:

"If specialists are asked why do you use astringents in this class of diseases, the answer is, invariably, that their patients get well under their use, and therefore why should they discard them?"

Has the author any better reason to offer for the use of a remedy than the one which he tries here to throw into our faces? Does he, perhaps, recommend his remedy because the patients do not get well under its use? This absurd objurgation is followed up by another equally remarkable statement, viz., that "the physician will do a certain thing simply for the reason that his grandfather did the same, not because his common sense dictates any such treatment."

The author of the paper was assuredly not for a moment aware how grossly he, himself a physician and ophthalmologist, insulted with these words the host of medical men, who, however progressive, have enough left of the true conservative spirit to gratefully thank their grandfathers for having brought our science to what it was when we began to take the trust, and who, however conserva-

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tive, have the true spirit of progress and are eager to learn and help to find new remedies and appliances for the relief of suffering humanity; and, further, to apply it as soon as they have found out that the new is better than the old; men, who never forget that the today is but the child of yesterday, but who work to make more glorious and more blissful the to-morrow.

This fling at the profession is the worse, since it is backed by the following statemen t, which seems to me to give the main reason for the writing of the remarkable paper. It states as follows :

"Dr. Michel, several years ago, 1878 or 1879, read before the State Medical Society a paper on this subject, in which he denounced the use of astringents in acute conjunctival inflammations, and gave his reasons for abandoning their use. For some reason or reasons the profession at large has not accepted his suggestions, and prefers to travel in the same old rut, which leads to an immense number of cases of chronic inflammatory granulations."

Now, if a scientific paper does not receive the general acclamation which its author, and but naturally so, thinks its due, is that a reason why he should accuse the whole profession, if, even implicitly only, of neglect? I, myself, for instance, have never been so fortunate as to see or even to hear of the paper just mentioned until I read the article at present discussed, and I dare say a good many more members of the profession are in the same position. Even a thoroughly good paper, when buried like this, may share such a fate. But would it not be more natural to think that by accident the suggestions of Dr. Michel have not become known to many, or, that they have, perhaps, been tried by others and have not yielded in their hands the same results? These would surely be more appropriate explanations. The author, however, not satisfied with saying that, for some reason or reasons the profession at large has not accepted these suggestions, etc., adds, "which leads to an immense number of cases of chronic inflammatory granulations."

Here we have it, as it were, in a nutshell. The profession, or to say it plainly, ophthalmologists at large, by their bad practice, bring about "an immense number of cases of inflammatory granulations." The deductions from this accusation, gentlemen, I leave to you to make.

Not forgetting the fact that not astringents but caustics and antiseptics are now common in use in the treatment in acute conjunctival affections (which is contrary to the author's statements), we will now see what reasons he offers against the use of astringents. Although fighting, as you see, against a straw man, set up by himself, the author has to offer a new theory, but without proof, as he says "Experiments are now being made by Dr. Michel to prove that the explanation offered is the true one. From the fact that the pain originally caused by astringents applied to the conjunctiva subsides after a number of applications, we are asked to believe on authority that the continued irritation caused by the astringents produces "a hypertrophy of the epithelial tissue" not of the conjunctiva as we would expect, but "of the cornea." Corns on the cornea, as it were, indeed. The paper says: "The thick, horny, epithelial masses in the laborer's hand, and corns on the feet are caused in this way." Even granting that this might perhaps be true, what, I ask, have these corns on the cornea got to do with the "immense number of cases of chronic inflammatory granulations" which the paper accuses all oculists of producing, who may be in the habit of using astringents in acute conjunctival affections?

Surely the writer did not mean to accuse us of two such horrible crimes? The paper goes on to say:

What then is the proper treatment for acute inflammations and congestions of the conjunctiva? Again, there is no discrimination at all between congestion and inflammation, or between the different forms of conjunctival inflammation.

But, what is *ex cathedra* given to us as the proper treatment in all these cases? Listen:

"Drop nothing into the eye that will irritate, and therefore not even a drop of wat-

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suppose on account of the danger of pro-
cing corns on the cornea, or chronic inflam-
atory granulations]. Use soothing applica-
ns to the closed lids, either hot or cold,
ichever is more grateful to the patient.
ost cases will be benefited more by the use
compresses wrung out of a cold solution
opium than by anything else. The com-
esses should be light, and should be fre-
ently dipped into the solution, each appli-
tion lasting between fifteen minutes and a
lf hour, and repeated four times a day. In
dition to this apply a bland, unirritating
guent to the lashes before retiring, and in
s way prevent the lids from gluing together
the morning."

Now comes the most noteworthy statement:
'Purulent and gonorrheal ophthalmia
ould be treated exactly in the same way,
cept that the solution and salve must be
d more frequently and the parts kept
upulously clean. No irritating drops, no
inging out the conjunctival sac with warm
ter, no nitrate of silver, no bichloride of
rcury, and your patient will get well.
is plan of treatment has always been used
the eye department of the Polyclinic, and
have to record the first failure. This will
be believed by most ophthalmologists
ost assuredly not], yet it is a fact, never-
less, that not one of our cases of purulent
gonorrheal ophthalmia has resulted in loss
vision, or had even an ulcer of the cornea,
ess the patient was seen after these changes
already taken place."

With all due deference to these most for-
ate experiences at the Polyclinic with this
de of treatment, I would just like to ask
at is the exact number of cases of purulent
gonorrheal conjunctivitis so treated?
ly the experience gained in the largest
sible number of cases seen at the Poly-
ic in the few years of its existence can
y be very minute, when compared with the
erience of all oculists the world over who
e for many years treated such cases. Such
ching is, according to the accumulated ex-
ience of the vast majority, absolutely bad
ching, and woe is to the majority of eyes affected with purulent and gonorrheal conjunctivitis, if this teaching is listened to. Indeed, this is even worse than what the midwives do, to whose account thousands of lost eyes still fall every year. They at least try to wash the newly born babes' eyes with chamomile tea, or mother's milk. All over the world honest doctors are trying to teach the people rational medicine (although it be empirically come to): all over the world oculists try to free the people of this, the most fruitful source of blindness, viz., purulent and gonorrheal conjunctivitis, by teaching and ordering absolute cleanliness and the continued and careful removal of all pus from the conjunctival sac, whether it contain in reality a specific germ or not; and all over the world immense good has come and will yet come from such teaching. And here, in 1888, this paper goes out, at least in our immediate neighborhood, and tries to teach you to go back to the old evils, to undo all that may, perhaps, by progressive science have been accomplished.

Here again, therefore, I want to enter my most emphatic protest. If the author of that paper is willing to abide by his teachings until dire results have shown him their fallacy, let him do so, but do not you follow it. The blinded babe or adult, will, according to the opinion of the vast majority of men of thought and learning, have a right to curse you, and will do so assuredly, let alone the pangs of your own conscience.

There is one more sentence in this paper, which I can, even at the risk of tiring you, not silently let go by. It says:

"Eye specialists, as a rule, pay very little attention to general pathology, and it is for this reason and astringents, that so many chronic eye cases are seen."

Whoever has had a chance and the inclination to follow scientific ophthalmology in its rapid and enormous progress, and the author of that paper as an eye-specialist and teacher surely should, if he has not done so, know, without my stating it, that no specialty has so continually and preeminently paid attention to general pathology. No specialty has

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so helped in the progress of the knowledge of general pathology as ophthalmology has done, and is doing to this day. I need not dwell on this. Every one of you knows it. This statement again then is surely not applicable to the vast majority of oculists. To be sure, if dosing every nine eye-patients out of ten with some iron mixture, means paying attention to general pathology, then, and then only, is the statement correct.

If that paper is starting in a new era of scientific communications, if it is to be in future the correct thing to try and force one's own ideas upon the profession by flinging mud at all that may be of a different opinion, and by speaking in sneering terms of the profession at large, why then science is to be pitied indeed.

Mr. President and gentlemen, I do not like the idea of posing before you as a champion of what I consider science.

If I appear to have done so, I have done it with reluctance. I felt that sombody had to do it, and that such a paper, full of sentences such as those I have drawn your attention to, could not be allowed to go forth unchallenged, and so reluctantly I did it. But, allow me to emphatically state here again, that no personal motive prompted me, and I hope my strictures will not be taken in that light. I should much rather prefer to have it all—"Molasses."

NOTES ON DISEASES OF THE RECTUM.

BY J. R. LEMEN, M. D.

Treatment of Hemorrhoids by Carbolic Acid Injection.

The treatment of hemorrhoids by the injedtion of carbolic acid was regarded by the profession with great favor a few years ago, but its popularity is now on the wane. This is due to the fact that though it is an easy operation to perform, many disastrous results have been reported as following its use.

Dr. J. M. Mathews is on record as opposed to this method of treatment, and Dr. Kelsey, of New York, who favored it for some time now believes it will fall into disuse. Mr. Crupps says it should only be used in selected cases, and that other operations are to be preferred.

The writer has seen cases that had been operated upon by this method, in which after a time the patients considered themselves worse off than they were before being treated.

I have under observation now a case treated by carbolic acid injections two years ago. She says she was relieved for a time, but is now worse than ever. A prominent surgeon gave me the history of a case in which the operation was followed by an embolus that lodged in the lung, producing empyema. The patient suffered for nine months, and during a part of this time he was expected to die at any time. He finally recovered.

There is no way by which the inflammation following the injection may be limited, and sloughing is likely to follow, with the production of an ulcer, or dangerous hemorrhage may occur from the opening of a blood-vessel; if the sloughing be extensive, stricture may follow.

Colotomy.

Mr. Allingham, Jr., in an article (*Brit. Med. Jour.*) on "Lumbar Colotomy; The causes of Failure in Attempts to find the Colon, and How They may be Obviated," says that the longitudinal muscular bands are very hard to recognize unless the peritoneal cavity be opened. He recommends that the cavity always be opened for the purpose of assuring yourself that you are dealing with the colon. He found on making dissections of over one hundred ascending and descending colons that the bands are always more easily and distinctly seen when they are covered by the peritoneum. When the peritoneum was found to cover only about one-half or two-thirds of the circumference of the gut, it was generally reflected off the gut at the longitudinal bands on to the abdominal walls. Mr. Treves gives as the result of his investigations that the posterior surface of the colon on the right was not covered by peritoneum in seventy-four cases out of one

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ndred, and on the left side sixty-four cases of one hundred. Dr. Allingham's results re widely different from these, being eleven of sixty on the right side and ten out of ty on the left. Now when the colon is enely surrounded by the peritoneum, it is imssible to open the gut without at the same ie opening the peritoneal cavity. Taking ese facts into consideration Dr. Allingham nks it is much safer to open the peritoneal rity at once and to search for the intestine a part is found which has a distinct longiinal band. By this means the danger is viated of making an artificial anus in the all intestine.

In two cases that came under my observan it was with much difficulty that the colon s recognized, although it seemed to occupy position considered normal by authors, *i.e.* If an inch posterior to the ist of the ilium.

If the statistics of Allingham be sustained further investigations then the chief gument in favor of the lumbar operation is no purpose, as the peritoneal cavity must necessity be opened.

Stricture of the Rectum.

In the New York *Med. Record* is reported ase of stricture of the rectum seven to nine ches above the anus. "The patient did not ve a natural movement from the bowels for ghty-one days." The constriction was used by a cartilaginous band entirely occding the rectum at its commencement, so it no fecal matter could pass into it.

That this case was misleading we do not ubt, as the patient was guilty of deception not giving the doctor a correct history of case. However the rectum should have en examined, and when it was found empty all times an obstruction should have been spected and the active catharsis instituted the attendant should have been withheld. The large amount of fecal matter contained the obstructed canal caused a strain on the estinal walls, and the cathartics given inased the peristaltic action and consequently strain. This, in the inflamed condition of the gut that generally prevails in these cases is liable to cause a perforation and escape of fecal matter into the peritoneal cavity, the patient dying of shock or septic peritonitis. We think that this was a case in which colotomy could have been performed with great benefit to the patient, and from the fact that she lived so long with the obstruction unrelieved shows that her general condition must have been fair at least. That the patient vomited but little was probably due to the chronicity and location of the obstruction.

Electrolysis in Stricture of Rectum.

Dr. Samuel Benton reports (*Med. Register*) a case of stricture of rectum which he treated successfuly by electrolysis. This mode of treatment is comparatively new, but we see no reason why the success should not be as great as it is in urethral stricture. It has not been resorted to a sufficient number of times to enable us to judge of results by cases reported, but we look on it with some favor from the fact that with care the danger is not great, while dilatation, even when care is used, may result disastrously to the patient, as may also the operation of proctotomy.

IS THE MULTIPLICATION OF MEDICAL JOUNALS ADVANTAGEOUS TO THE PROFESSION.

REMARKS BY DR. CROTHERS, OF HARTFORD, CONN.

Read before the American Editor's Association at Cincinnati, May 7, 1888.

Medical journals, like medical colleges, are often exotic growths in this country. Like a flower of the fields, in the morning it flourisheth and groweth up, in the evening it is cut down and withereth.

Medical colleges and medical journals in their birth, growth, and history, follow parallel lines. They are born from the same surroundings, and die from the same causes.

There are in this country about two hundred medical journals, and about one hun-

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dred and thirty medical colleges, all of which may be rated as fairly good, doubtfully indifferent, and positively bad.

The general appearance and management of many of these journals and colleges, indicates that only from an early disolution can evolution and progress in medicine be helped on.

A more general view brings out the fact that this strange growth and multiplication of journals and colleges, beyond the natural needs, is a psychological condition, incident to every advance of science and literature. Like the squatter settlers of a new country, credulous, enthusiastic, improvident, they occupy the land for a time, then give way to the more permanent settlers.

The loss to science, the loss to individuals, and the loss to the world by these premature squatter efforts to found medical colleges, and build up medical journals, is lamentable as well as preventable. Already an instinctive demand is coming up from the profession for better colleges, better teaching, better journals, and better men to manage them.

The multiplication of medical journals will of necessity, be injurious to the profession for the reason:

First, That the scientific purpose of the journal is changed and merged into a pecuniary one. Its value in the realm of science will be governed by commercial influences. It is conceived and born on the supposition that it is going to fill a new place in the world. The ardor of the first year changes to appeals for help the next. It is starving, and must struggle for life. The financial editor comes to the front, and therefore the scientific editor is always in the background; or he is dwarfed into a business policy man.

Second, The multiplication of journals injures the profession by making them dependent entirely on its patrons; preventing independent thought or act, and suppressing frank expression except in remote matters, beyond local influence. Such a journal is always partial, and never safe as an exponent of science.

Third, The multiplication of journals is disadvantageous, because it brings into the ranks incompetent editors and managers men without skill or training—many of who are good teachers, good surgeons, good practitioners, good technical scholars, yet with tact or discrimination to weed out the t from the false, or to discern and descr the practical facts of scientific research cle ly and concisely.

Fourth, The multiplication of medi journals is a damage to the profession lowering the scientific and literary cast medical thought. Papers are published t reflect on the author and editor, and repo appear that are positive obstacles in t march of science. Books are written and vised that should never have seen the lig and confused theories and half facts are p forth as truths with loss to all readers.

It is the same in medical journals as medical colleges. Superficial, imperf teaching results in poor, weak physicia and poor, incapable journals not only refl on the intelligence of the readers, but inj them more or less. Medical journals, li medical colleges, are great educators of t profession. Medical journals take the pl of professor, teacher and text-book, and h it through a lifetime. The errors of medi teaching in college may be overcome in a life, but the influence of medical journali continuous and permanent, for good or

The multiplication of medical journals dangerous weakening and division of thi fluence, making them followers instead leaders. The medical journal that simply flects the local society or college and narrow personality of its editors, is far be the level of its power and usefulness.

The advance of medical science is so ra and the fields of labor are widening in ev direction so precipitously, that the medi journal becomes more and more important a medium for recording the history of progress and noting the discoveries in all rections and pointing out the practical c clusions. A secular journal that has little no facilities for obtaining news, and no

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ess for discriminating comment, always ails. A medical journal that comes loaded ith long papers and lectures, made up of adly-compiled second-facts, sandwiched with travagant claims for remedies, and indifferit items conveying old or exploded ideas, is damage to the profession. A medical jourl which ignores all literature except that hich comes from its own circle, and gives a rge space to translations that are of no speal value, is an obstacle to medical progress. uch journals are neither followers or leaders. hey are journals only in name. The profeson is always injured by these dwarfed and nperfect efforts to present the facts of sciace to its readers. The multiplication of ournals to be of advantage to the profession, ust be the multiplication of facilities for onducting scientific journals and of editorial kill in discovering real facts and presenting em. To be of advantage, such journals ust be independent of subscribers and atrons; must be independent enough to put rof. Jones' lecture in the waste-basket, and ublish entire, plain Dr. Smith's paper; must e independent enough to tell its readers that he medical book or encyclopedia is worthss, that the vaunted remedy or medical attery or appliance will fail; that the new heory is an old one revived and misleading, r to tell the society whose report is sent for ublication, that it has no literary or scienific value, and decline the translation for the ame reason. They must be independent nough to state the facts in regard to all maters of social and medical science, no matter hat the consequences may be. Then the ultiplication of journals will be of advanage to the profession. To do this, medical ournals must concentrate and not divide. hey must unite their interests and forces, nd rise above the personal influences of medcal colleges, book publishers, drug manufacurers, and mutual admiration societies, etc., nd the pecuniary influences which are more r less prominent at present. Medical jourals, like the secular papers of the day, hould command subscribers and patrons, and ot beg for them. They should fill so large a place in a physician's workshop as to become a necessity, as much so as medicines or medical appliances. The increase of medical journals that develops personalities and columns of gossipy items and localisms, injures the profession, and lowers the journals into a mere village newspaper, superficial, sensational, and unreliable.

The true medical journal should have no time or space for personalities, bitter sneers, or criticisms. Its object is to present the facts which the march of science is unfolding, and to point out the theories and conclusions which seen to be sustained by the evidence. The true medical journal should be able to make independent, original researches, especially to test new drugs and new theories for the benefit of its readers. The true medical journal is scientific, clear, broad in its views, generous in its sympathy, is never dogmatic, never sensational, never personal.

The true medical journal is never a newspaper, never an organ for one party or another; it is a judge, a discriminating historian of medical events and facts for the reader, who must trust them and test them. The multiplication of medical journals that must depend on subscribers and patrons for support from the start, is dangerous to the profession, because it brings into the management a pecuniary motive which is often incompatible with scientific truth.

An illustration from life will make this clear. Dr. Jones was a good surgeon and a man of some education. Some of his papers had been published and quoted in other journals, so he felt the want of a home journal. The local society joined and a journal was born, with Dr. Jones as editor. The first year two hundred subscribers appeared on the books, half of whom never paid. The patrons of the journal had full space, and the editorials were rehashed from other journals. The reviews of books were always warm and fulsome, and new drugs that were advertised received a great deal of attention. The local health board got into trouble, and this journal defended them with ardor and acridity. Some members of the society became angry

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at the state society, and this journal heaped coals of fire on the supposed offenders. The state society divided, and great bitterness prevailed. A vacancy occurred in a medical college. When Dr. Jones found he could not get the appointment, he openly charged the officers with body snatching.

A libel suit and a great scandal followed, and finally Dr. Jones died; and a few months later the journal disappeared. Two thousand dollars had been sunk in the journal, the harmony of the state society had been broken up, and the medical reputation of journalism lowered by the defense of a doubtful health board, and the stability and usefulness of a medical college damaged. In literature the papers published varied as widely as the authors in quality and quantity. The reviews and editorial comments were misleading and unreliable. The profession failed to sustain this journal and were injured by it. Literature and science suffered, and the editor, although a good man, failed in reputation and suffered loss of money to keep alive a premature birth that was not wanted, and was without value to science.

Such journals, like cross-road medical colleges, are a continual menace to the honor, usefulness, and truthfulness of the profession. The multiplication of journals which do not rise to the dignity of impartial scientific candor, lowers the influence of the profession in all public questions. The multiplication of medical journals which do not give evidence of literary taste and culture comparable with the literary progress of the times, reflects on the intelligence of the profession. The multiplication of medical journals which do not rise above the commercial spirit and motives that would use them as mediums for personal ends, are a loss to science.

It is the spirit of all true progress to concentrate and consolidate all human efforts in the struggle from the lower to the higher. Personal journals will die, local journals are the products of the hour and man. Scientific advance is not the advance of the individual or the growth of a society or college, but the combined work of all.

Increase of medical journals, without increased facilities, and capacity for conducting them, is to repeat the blunders of the past.

The multiplication of medical journals has not been marked by an increase of literary style and excellence, corresponding with the literary work in secular journals. The discovery of medical facts has far exceeded the culture and capacity to accurately describe them. The medical journals have grown more rapidly in numbers then they have in quality and strength.

The profession are urged by all sorts of motives to subscribe for journals. The price is lowered, premiums are offered, and all because of the rush of new journals, all competing, all struggling in the battle for "the survival of the fittest." In this we all suffer. There are abundant indications that this transition stage of medical journalism is passing away. The ideal journal has not yet arrived; but there are dim outlines and shadowy forms of his coming. Then the present order will be reversed, the subscriber will appeal for the journal, and not the journal for the subscriber.

The reckless multiplication of journals will postpone this time. Medical journalism in this country, with all its imperfections, is fast becoming a mighty power. There is a brilliancy and boldness of treating medical subjects which, if concentrated and directed along paths of more thorough scientific culture, would lead all the world in medical journalism.

This only can be accomplished by concentrated effort and emancipation from the slavery of pecuniary motives.

The multiplication of medical journals is fatal for this object, and in a larger sense still more injurious and disastrous to the profession.

A CASE OF ACUTE YELLOW ATROPHY OF THE LIVER.

BY. DR. WALTER DORSETT.

Reported before the St. Louis Medical Society, May 12 '88.

I have a specimen here which was removed

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from a patient, who was admitted to the Female Hospital for the treatment of diarrhea. She was a colored woman, aged 19 years, a servant by occupation, weighed about 180 pounds and of good physique. She had resided in the city about eight months. When she reached the hospital she was very weak, and seemed to be much fatigued from the ride. She staggered when she attempted to walk, and when spoken to replied in a dull and listless manner. Little history could be gained from her concerning her illness beyond the fact that she had been suffering for one week with diarrhea of moderate severity.

A little before midnight following the day of her admission, she got out of bed and was found wandering about the ward. On the following day, May 8, an attempt was made at a more thorough examination. It was found that she was very restless, and was un able or unwilling to speak, her head was tossing from side to side, eyes closed. Attempts at palpation or percussion were met with some resistance. She was apparently in a semi-comatose condition. It was ascertained that the hepatic dulness extended vertically from the margin of the ribs to the fifth intercostal space. General resonance bordering on tympanites pervaded all regions of the abdomen. The patient seemed to be especially tender on pressure over the right hypochondrium, in fact slight pressure there elicited piercing cries.

The physical examination of the thorax elicited nothing abnormal, save an indistinct second sound of the heart. The conjunctiva was stained a bright yellow color. Pupils somewhat dilated, and did not respond to the light. The temperature was 100.2°, pulse 98, respiration 20 per minute. A slight bloody discharge was issuing from the vagina. During the day the patient passed a small amount of urine, which was voided involuntarily. It was of a bright yellow color, staining the bed clothing. A small quantity was obtained later by catheterization. Its specific gravity was found to be 1031, and it was of the same yellow color, possibly of a little darker hue, and by the nitric acid test was found to contain bile pigment. Some fecal matter was passed, but I failed to see it as it had been disposed of by the nurse before I arrived at the bed-side.

May 9, the patient was no better, the coma was increaing, conjunctiva still of the same yellow hue, and the soles of the feet presented a jaundiced hue. As the patient was a full blooded negro, the appearance of the skin in other portion of the body had not changed in appearance. The bowels did not act, nor did she pass any urine on that day.

On May 10, in the afternooon the coma was more profound, breathing was more labored, and although several doses of croton oil were administered with great difficulty, (as the patient had loss the power of deglutition), the bowels did not move. The temperature rose slowly to 104°, the pulse became more rapid, and she sank slowly, and died at 9,30 P. M.

A post-mortem was made fourteen hours after death. Rigor mortis was present. The calvarium was found to be very thick and hard, the meninges congested, and the superior longitudinal sinus was filled with dark fluid blood. Nothing abnormal was noticed about the brain.

On examining the thorax, the right and left lung were found to be congested. The heart was small in size, the muscular structure was rather soft. The fibrous structure of the valves presented somewhat the same yellow appearance as the conjunctiva.

On opening the abdomen the intestines were found filled with gas and occupying almost the whole abdominal cavity. The liver was found tucked up under the ribs, as it were. Upon cutting open the stomach, there was found a dark grumous material which was taken for changed blood. Many ecchymosed spots were also found here, as also in other portions of the intestinal tract. No true fecal matter was anywhere in the intestines, but a considerable amount of dark grumous material resembling tar, which was taken to be the result of intestinal hemorrhage.

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The spleen was found to be, as you see, of small dimensions, and the liver presents a more than ordinarily interesting condition. The weight is three pounds. It is of a bright yellow color, with reddish spots, and it is of soft consistency. The liver is very much smaller than we would expect in a patient of this weight, say 180 pounds. The spleen is somewhat small, and on section of the kidneys they present the same yellow tinge, and the cortical portions seem to be somewhat thickened.

We took this to be a case of acute yellow atrophy of the liver, and upon consulting the different authorities I am still more convinced that the diagnosis was correct. It is an acute disease, and those affected with it usually die in eight or nine days. This patient lived just eight days from the time she was taken sick. It is stated that in this disease the spleen is very much enlarged, but in this case it was smaller.

Frerichs in his treatise on the liver speaks of this as being an almost constant condition, the spleen being larger, but he says that occasionally it is smaller whenever the capsule has become infiltrated or thickened, so that the spleen does not seem to have a chance to become larger, and when this exists it is stated that there is always an hemorrhage into the intestinal tract which was the case in this instance.

The specimen has not been examined microscopically. I will state that I was told by the lady for whom the patient worked, that she went to a funeral, on May 1, of a person to whom she was attached and was very much depressed afterwards.

TOBOLDT VERSUS CARLSBAD.

BY G. RICHTER, M. D.,

Prof. of Physiology, Beaumont Hospital Medical College St. Louis.

Our medical papers and even our dailies frequently contain advertisements of a New York agency for Carlsbad water and salts, cautioning the public against imitations of the same, claiming that the counterfeit consists of little else than Glauber's salt and reprinting as a proof for such statements: "A Valuable paper read at the Ninth International Medical Congress, by Dr. A. L. A Toboldt, Assistant Demonstrator of Pharmacy at the University of Pennsylvania, on Carlsbad Water and Sprudel Salt," with the apparent purpose of instructing the medical fraternity as well as the laity about the wonderful remedial properties of this unique spa.

The advertisement referred to is incorrect in its details, and the valuable paper of Dr. Toboldt is invaluable for its errors. In fact, what the learned doctor says is rather apt to make the "busy practitioner" feel suspicious against Carlsbad, for which reason I superscribe my short criticism, "Toboldt versus Carlsbad."

The somewhat official aspect of Dr. T's. article calls for corrections, but being limited in space, I will confine myself to the most surprising and perplexing statements only.

It will be best to follow the distinguished writer in his discourse. He says: "Although the subject (Carlsbad) is so old, (five centuries,) that it may be doubted whether there be anything new to say about it, nevertheless my experience has been such that—no remedy has given me so much pleasure." I quote verbatim, only leaving out superfluous words. But how logical! Dr. T. then proceeds to explain how he had a number of hypochondriacs whom he could not benefit before, but whom he cured with Carlsbad water—the imported of course. "These surprising results," says he, "bade me pause (!) and I then set about investigating the subject more closely." A lecturer at a University investigating a remedy after having used it!—"arguing that it certainly could not be the water alone that produced those effects"—(otherwise he might have obtained the same result with distilled water) "I proceeded to use the crystallized Sprudel salt, which being obtained by evaporating the water, I thought must surely be the remedial agent, but alas, I failed to get that peculiar therapeutic effect."

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Oh University! Oh Pharmacy! Oh Demonstrosity!

"There was something at fault with either my argument or the Sprudel salt" (both). "On looking up the subject, I found the analysis of the salt did not tally with that of the mineral water."

Now these very words are said to have been read before the Medical Congress. The learned teacher of pharmacy, practicing upon hypochondriacs, with Carlsbad water, cures them, then reads the subject up; arguing that it was not the water, gives the salt obtained by evaporation of the water, fails in his further experiments, reads again, and at last finds the cause of his failure. So he had never before seen an analysis of Carlsbad water.

Dr. T. further states repeatedly and with emphasis that in none of his cases any particular diet had been prescribed. "The patients were allowed to choose for themselves and to eat whatever their appetite craved." His cases include: Diabetes, chronic constipation, catarrhal inflammation of the stomach, ulcer of the stomach, gout, children with marasmus, etc. Now does not that sound like praising a patent medicine? Is there any thinking physician who would dare to treat such cases, without paying the very closest attention to the regimen? If it be true, that diseases like those named are frequently caused by indiscretions againt the digestive apparatus—but why enlarge upon this subject?

The preparation Dr. T. praises so highly is not the crystallized sprudel salt; he recommends the sprudel salt powder, because the chemical analysis of the latter more clearly corresponds to that of the mineral water. There is something in this. We will give Dr. T. another opportunity and time to look up the subject, which he certainly does not master yet, and meanwhile direct our attention to the real facts about Carlsbad and what belongs thereto. The mineral water, the crystallized salt, the salt powder and the agents in New York.

Everybody knows all about Carlsbad, Dr. T. excepted. The mineral springs, the only alkaline saline thermal water of intense effect, are situated in Bohemia. Their therapeutical agency is due to carbonates, sulphates, carbonic acid and high temperature. The proportion of its solid ingredients is here most essential.

The high temperature favors absorption, allays irritation, aids circulation, furthers secretion. The free carbonic acid makes the salts digestible by keeping them in solution, a fact seemingly forgotten by many writers.

According to Berzelius, Bauer and others Carlsbad sprudel contains in 16 fluid ounces:

		Grains.
℞	Calcium carbonate,	2.3700
	Ferrous "	.0270
	Lithium "	..0200
	Magnesium "	1.3690
	Manganous "	.0060
	Sodium "	10.1320
	Strontium "	.0070
	Sodium phosphate,	.0037
	Potassium sulphate,	.7166
	Sodium sulphate,	19.2840
	Sodium bromide,	.0091
	Sodium chloride,	7.9750
	Sodium iodide,	.0001
	Calcium chloride,	.0245
	Alumina,	.0017
	Silica,	.5770
		42.5227

Carbonic acid 12 cubic inches. Temperature 115°—162°.

I need not dwell on the physiological action of those constituents, but it is necessary to remember that all those salts are present in solution in the natural mineral water at Carlsbad. By virtue of the presence of a large amount of carbonic acid they are kept in solution. As soon as the gas has escaped from the water, calcium, iron, magnesium, and silica are precipitated, forming an insoluble sediment; and though the latter salts are highly important, they will not be found in the exported "genuine Carlsbad" in the same proportion. The exported water, bottled at the springs, viz, the official Carlsbad water of

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the New York agents, is not genuine in the scientific sense. It is itself an imitation.

As to the crystallized salt, it is simply made by partly evaporating the water; crystals form, are collected and packed. Dr. T., after much study has correctly found in his books, sulphate of soda crystallizes first, and it is consequently only an impure Glauber's salt which is sold by the official agents under the name of Carlsbad salt, at an extremely high prize.

What I state here has been known for about 500 years and has been published in every work upon the subject.

Finally,the sprudel salt powder. "It is obtained by evaporating the water, but the powder is, while moist, exposed to the carbonic acid, and in consequence, contains more carbonates and less sulphates. In fact it contains all the soluble constituents of the water."

That is impossible. With the disappearance of the carbonic acid most of the salts become insoluble. One may rightfully feel astounded that the above statement could have been made in good faith.

The natural Carlsbad water as taken at the springs,(in conjunction with a proper regimen) is *almost* the best. But, and this is addressed to the official agent, a scientifically prepared artificial imitation is better yet. It may sound paradoxical but is true, as first has been proven by Struve, later by Faraday, Vetter, Harnack, Ziemssen, Welch, (in Pepper's system of medicine), Baumgarten, and innumerable other authorities. The genuine is changeable in the proportions of its essential salts; it contains a number of useless compounds of disagreeable taste; it is extremely costly.

Ziemssen, I believe, was the first to recommend a cheap but very effective artificial composition. He says: NA SO_4:40.0 NA CO_3:6.0 NA CL:1.0 should be dissolved in hot water, then the latter evaporated, the remaining salt powdered, and a proper dose of this (one-half teaspoonful) taken in hot or carbonated water. His idea was by this mode of preparation double salts would form, giving a better effect. The only objection to this plan is that there are no salts dissolved with carbonic acid.

The ideal artificial product is certainly the one which contains all the useful constituents of the original dissolved by means of carbonic acid and bottled under its pressure.

This may be prepared of double or greater strength and then taken mixed with hot water. Such an artificial mineral water will possess the advantage of being constant in its proportion of salts, agreeable in taste, powerful as a remedy and within the reach of everybody in all parts of the globe, provided that it has been manufactured by a reliable man of scientific attainments.

ATROPINE IN POISONING BY PILOCARPINE.—Dr. Wicherkiewicz records in a Polish medical journal a case of poisoning by pilocarpine. Eight minims had been administered hypodermically in the temporal region for an ophthalmic affection. This was followed by very severe symptoms of poisoning and collapse. A subcutaneous injection of morphia, and an inhalation of nitrite of amyl proving useless, two drops of a one per cent atropine solution were administered hypodermically. This had more effect, and the patient recovered.—*Lancet.*

[It will be remembered that atropia given hypodermically, sustains the heart's action in a marked degree in patients suffering from profound opium narcosis.]

DR. GEORGE M. STERNBERG, commissioned by the United States Government to investigate the methods of inoculation practiced in Brazil and Mexico for protection against yellow fever, reports that so far no discoveries of practical interest have been made as to the etiology of the disease.

During the coming summer he hopes to pursue his investigations in Havana, making a diligent search for the yellow fever microbe.

THE International Ophthalmological Congress will be held at Heidelberg, from the 9 to the 12 of August next.

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J. H. CHAMBERS,
914 LOCUST STREET, ST. LOUIS, MO.

SATURDAY, JUNE 2, 1888.

SENN'S TEST FOR PERFORATION OF THE INTESTINAL TRACT.

At the meeting of the American Medical Association held at Cincinnati, Dr. Nicholas Senn, demonstrated by experiments on dogs that the "Insufflation of hydrogen gas into the rectum is a sure means of determining perforation of the intestinal tract" in gunshot and stab wounds of the abdomen.

These experiments were so conclusive that there remains no doubt that we have a method that is infallible in determining this hitherto perplexing question.

The appreciation of the demonstrations of Dr. Senn found expression in the unbounded enthusiasm of those that witnessed them, and the resolution of thanks that was voted him unanimously by the Surgical Section will be re-echoed throughout the whole world by all practical surgeons.

In case of injury of the abdomen by stab or gunshot wounds where there are no urgent symptoms that determine the fact of perforation of the intestinal tract, it will no longer be necessary to remain in doubt until laparotomy proves it to be or not to be the case, but the hydrogen test will to a certainty demonstrate to the surgeon the course he must pursue.

The value this test has from a medico-legal standpoint will be thoroughly appreciated, for it will be the means of keeping the surgeon out of those uncomfortable positions that often bring him into courts on account of these cases.

This test will also remove that bar of conservatism that has heretofore existed, and has advocated the advent of urgent symptoms before laparotomy was done in these cases and whereby valuable time was lost which often was the link that connected the life of the patient with this life below.

A. H. MEISENBACH.

IDIOPATHIC ANEMIA.

Dr. Robert T. Edes, of Washington, D. C., in writing upon this subject *Jour. Amer. Med. Ass'n.*, defines the characteristic and diagnostic points which justify us in giving to a case of anemia the designation of idiopathic, essential, or progressive pernicious. He says the latter adjectives are only applicable to a part of the cases which are properly classified together by every characteristic except a fatal termination.

The first point given is the intensity of the anemia, which is often markedly greater than the attending degree of emaciation. In fact in some cases, no emaciation is present.

The second point is the lowering of the number of corpuscles of the blood without a corresponding lack of coloring matter, presenting in this respect a marked contrast with the anemia of chlorosis. He has found even in cases that recover the number of corpuscles reduced to one-fifth of the normal.

The next point given is the shape of the corpuscles. They become swollen, more nearly spheres than discs, sometimes look like a foot-ball partly blown up, or they are elongated, and assume the shape of a pear, a battledore, a snowshoe or they have tails. In size they vary more than in the normal specimen.

The next point is that there is no discoverable cause for the condition.

Dr. Edes thinks the pathological changes which have been found in the mucous membrane of the stomach are not sufficient to account for the anemia.

He reported eight cases corroborative of the distinctive features of the disease. One of the cases had a sensation of constriction

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or compression across the lower part of the abdomen which was constant and seemed to have nothing to do with the condition of the bowels. He had a decided weakness in his legs. The muscles were small and flabby, but responded well to the faradic current. Beyond the weakness in the legs no other evidence of spinal disease was found.

The usual remedies were used in these cases; Fowler's solution, strychnine, iron and other tonics. Inhalations of oxygen were used in one case but with no apparent benefit.

EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

Will my always classical, careful and correct friend Ferguson of the Indiana *Med. Jour.*, permit me to remark that a realizing sense, on the part of an editor, of the ever present pervasive personality of the "typo phiend" and his merry manipulations of the types will prevent him from ferociously attacking with too (two) solid columns a patient and long suffering paragraphist who has been made to use, *nolens volens*, the article "*The*" instead of "*An*" in the hurriedly expressed idea "an element essential to softening, fermentation and decay—humidity—is wanting in Colorado."

Frankly my dear I. M. J., allow me to suggest, timidly and gently if I may, that it is a waste of effort to laboredly attempt to drive a tack home, or brush the frisky fly from one's eye with a sledge hammer.

The tyro who runs may read the errors of the typo.

* * *

Speaking of typographical errors, my editorial friend Hughes, of the *Alienist and Neurologist* was made to say (in an article comparing the relative merits of clinical and didactic teaching) a short time ago, "I, big man with a big clinic can accomplish a great deal."

It was clearly a substitution of the pronoun I for the article A. However a fine opening was furnished for the critic to pounce upon the unsuspecting and innocent writer for an indulgence in the "*big Injun*" style of expression.

* * *

The Indiana State Medical Society meets at Indianapolis, June 5, 1888. A large attendance is anticipated, and when the fact appears that Dr. Geo. J. Cooke, of Indianapolis, is chairman of the committee of arrangements one is safe in concluding that the meeting will be in every way successful.

* * *

I notice in the columns of the medical journal published at Los Angeles, Cal., the announceemnt of the marriage of two sisters, Drs. Rose and Lula Talbott to a pair of male M. D.'s by name H. Bert Allis and F. D. Bullord. The journal makes the point that this is the first time on record where four doctors became two.

These young men have acted wisely in thus "pooling their issues" with medically educated partners for life. How pleasant upon a dark rainy and howling night when called out by the belated case of "Sunday dinner colic" will it be for the member of the firm whose garments are bifurcated to roll over the far side of the couch sleepily and say partner Rose or Lula dear, as the case may be, I think you had better see that case.

In the plan above outlined, may we not find a solution of the problem regarding the co-education of the sexes in medical matters.

* * *

Is there any lesson which a doctor has to learn in the beginning of his career so difficult, as to learn to wait.

Some one has truly said that all things come to the one that is willing to wait.

Yes "learn to labor and wait" patiently, but during this waiting period that tries the soul of the young doctor, there is nothing so conducive to comfort and contentment as the keeping up with the progress of the profession and current literature. The best companionship is varied reading.

* * *

By the way, in my meanderings among medical men, I now and again find one that

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sour, snarling and discontented; at war apparently with himself, and ready ever to see e "beam in his brother's eye."

His lines have generally been cast in pleast places, he knows little of a struggle for istence, he may feel that, socially speaking, e stands on the high places of the earth", derstanding not what necessity, what suffring, mean.

The moon never beams bringing him eams of the wolf at the door, and yet with all he knows nothing at all of the one word hich in the vocabulary of words leads all the st—charity. The explanation is simple; s life has been a symphomy of selfishness, has been denied the disciplinary effect of nger, want, weariness, disappointment, and e resulting commodities of a loving heart, d a pleasant countenance.

Though many of the ordinarv means of ppiness fail him, there is, at least one inhaustible resource left him, viz., the enjoyent of other mens' faults.

* * *

Dr. McIlvane, of Peoria, the retiring vice-resident of the American Medical Editors' ssociation, is one of the most aggressive and d energetic writers of the American Medil Press. He well represents the push and sh of the younger element of the craft.

* * *

In an admirable address upon "Professional uccess", Dr. Pinkney French, of Mexico lo., says:—"Take your time. Be moderate. e thoughtful. Be careful. It is true that ou have a work to perform and a limited me in which to do it, but even then the me for you to bid farewell to this world will me before many of you are either ready or illing to go. Method is the great conserva- r of time. Physicians rarely make the st of their opportunities. Their life is one f constant change from one kind of case to nother, which is, of itself, discouraging to ethod, hence they too often become careless d prodigal of time. I would impress upon u one fact, that the past is gone forever, t a day, not an hour, not a thought, not an t can be recalled. Like a dream of the st they are all gone forever.."

There is much food for thought in these few words. Indeed, it is true that we all need to hasten slowly. More men die from worry than work. Friction is more destructive than force.

* * *

Appropos to the foregoing, I quote the following glowing thoughts from a recent article of Chancellor Howard Crosby, in the *Forum* on "Haste to be rich", viz: "The greatest need of our land to-day is an education away from the fearful danger of a haste to be rich, a cultivation of the quiet and improving arts, an encouragement of genial and benevolent lives, a preservation of home virtues, a teaching of the truth that moderation best serves the cause of happiness, and a demonstration that in helpfulness to others man best helps himself.

While wise laws can do much to suppress some of the worst features of the gold hunt, it is to the press, the school, and the church, that we must look for the inculcation of the purer and loftier ideas that will meet and overcome the materialism which the peculiar conditions of our country have fostered, and which the thoughtless minds of our youths so readily accept." Contented minds are more conducive to happiness than riches, glory or fame. In our life work let us remember that it will profit us but little if we gain a world of wealth and lose contentment and happiness.

* * *

Dr. C. F. Taylor, of Philadelphia, in his journal, the *Medical World*, has had freely discussed the use of symbols in prescriptions. He has suggested the use of the Greek letter delta △, as a substitute for the dram sign ℥. I think the preferable plan will be to writs out in in a plain manner dram or ounce, and drop altogether the signs ℥, ʒ, which are liable to cause confusion.

* * *

The recent death of Dr. Edward Wyman, the head of Wyman Institute, at Upper Alton, Ill., at the advanced age seventy-four, is a loss to the entire country and the cause of education which cannot be computed.

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He was a man of strong, heroic qualities and a born educator. His knowledge of the weaknesses, capacities, aspirations and general character of growing boys, and undeveloped men, and human nature in general, made him the ideal organizer and manager of a college.

His wonderful executive ability, broad and expansive mind, influence over others, and power as a patient bearer of burdens, justly or unjustly heaped upon him, would have made him a leader, a commander, no matter what the work he might have engaged in.

To such as he falls the honor of being one of the first citizens no matter where his home.

After fighting a good fight, living a long, working and helpful life,growing old gracefully,cheerfully and usefully,he died as the strong manly and self reliant would wish to die, in the harness, at his desk, at the close of the last day of the month of April, signing the checks for the payment of the helpers in his educational work.

He died as he had lived, promptly meeting his obligations, with never a murmur or a complaint, ever ready for emergencies, he leapt out upon the bright and sunlit surface of the well known sea, by weak mortality untraveled which rolls around all the world.

* * *

It comes within the natural order of events, however sad it may be, for those ripe with age to die, but the death on yesterday, of the young, conscientious and ambitious, Dr. L. L. Papin, shocks our ideas of that which should be permitted to occur. Dr. Papin was in the very outstart of a professional career, which presented every indication of being able, valuable and useful, the pride of a doting father, who concentrated upon him the efforts of a long, workful and eminent life, not devoid of sorrow and disappointments, but full of an abiding confidence and satisfaction in his hopeful son. I know that Dr. T. L. Papin has the complete symphathy of the medical profession in his great sorrow.

* * *

A recent issue of the REVIEW contained a very able and concise statement from an authority in Forensic medicine, why the murderer, Maxwell, now confined in the St. Louis jail for the killing of Preller with chloroform should not receive the help of medical men in his efforts to secure a reprieve from Governor Morehouse. However, in spite of the strength of the presentment made, I trust the argument will be overruled.

Medical men, as a rule, do not permit the milk of human kindness in their breasts to become soured, or curdled, or dried up, and a poor, unfortunate, mental and moral wreck within the shadow of the gallows, should move the bowels of compassion of a man to a point of prompting him to exhibit a mild degree of charity.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday May 12, 1888. The President, Y. H.BOND, M. D.,in the chair. J. B. PRICHARD, M. D., Secretary.

DR. BREMER.—The specimens which I have to present to the society are a tuberculous tumor of the tongue and a tumor which grew from the pia mater of the brain.

Then I have a third specimen, a chemical one. No doubt a great many of the gentlemen have read of the case of poisoning by antipyrin which was given together with sweet spirits of nitre. I believe the child took about two grains of antipyrin and died. The question then arose whether the death was really due to poisonous effects of the drugs administered, and whether the green precipitate observed on mixing the two drugs was of a poisonous nature. I procured some of this decomposed and changed antipyrin, in the form of a greenish powder, and made some experiments with it. Three days ago I injected three grains of it into a rabbit. The powder is slightly soluble in hydrochloric acid, and by heating it, in water. Whenever it is dissolved in water it has a tendency to remain in solution. I in-

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ted a little of the solution made with the drochloric acid under the skin of a rabbit, l in another rabbit I injected some of the ution obtained by heating in water. These bits remained entirely healthy. But as experiment was open to objection upon ground, that it might be that when the g came in contact with the digestive fluid the stomach other reaction might take ce, I introduced two grains into the mach of the rabbit, through a sound, and jected into the stomach of another rabbit drops of sweet spirits of nitre, two grains antipyrin, and half an ounce of water, and id not obtain any bad results whatever. hen I went to my laboratory in order to k after these rabbits, they were fighting l were very lively. So it does not seem have any poisonous effects whatsoever, l it would seem that in all probability the th which followed the mixture to which I ve referred was nothing but one of those idents which children will sometimes meet h even after the exhibition of distilled ter.

DR. S. POLLAK.—What is the cause of the en color?

DR. BREMER.—That is caused by the deposition; the solution of the sweet spirits nitre and antipyrin combine and crystals precipitated.

DR. POLLAK.—What gives it the color?

DR. BREMER.—I do not know; all these thetical chemicals are very apt to be deposed and changed into other bodies; of rse it is very difficult to determine what d of chemical reaction has taken place e. It is very well known that these comite bodies, such as antipyrin, by a very ght change of the arrangement of the moles, are changed into the most violent poi-s.

DR. FRANK R. FRY.—I want to say a word ghtly critical of what Dr. Bremer said out operating upon tumors of the brain, beuse I think his language might possibly be sleading. He said he believed this tumor s an operable one, and could have been reved, because in removing it the brain substance would not have to be disturbed; from which it might be inferred that in his opinion a tumor could not be removed successfully if in removing it brain substance had to be removed. I am confident that Dr. Bremer knows, and most of us have seen reports, of cases where tumors have been removed in which there was a very considerable disturbance and destruction of brain substance, with remarkable results.

DR. BREMER.—I merely wish to say that in cases of abscess there may be great loss of substance and yet the case do well, but where a large piece of the brain substance has to be removed, it is a sign at least that we have to deal with a malignant tumor, and operations for malignant tumors of the brain are hardly admissible. It is only when the tumor can be peeled out without much difficulty that an operation should be performed. Where the brain has to be cut into—where the boundary line between the tumor and the brain is not defined, as it is here, I think an operation is not only ridiculous but it is criminal. I would not touch such a case, although it may be very difficult to determine at the time of the operation whether there is a boundary line or not—whether it is malignant or benign.

DR. WM. JOHNSTON.—How would you determine between a benign tumor and a malignant tumor where there is no way of seeing it?

DR. BREMER.—When a tumor is cut into you can tell with some degree of certainty whether it is a carcinoma or a sarcoma.

DR. JOHNSTON.—Can you tell without cutting into it?

DR. BREMER.—I suppose by simply exposing certain tumors we could determine what they were; for instance, we would know an angioma, which originates from blood vessels. There are only a limited number of tumors of the brain. Very frequently they are gliomata. I don't believe a glioma, although a benign tumor, can be entirely removed so that it will not recur. Nobody can tell the limiting line between such tumors and the healthy brain; they glide into one another.

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Dr. Fry.—I am sorry I have not data at hand to present, and make what I have to say more definite. But I am certain that there have been a few tumors—of course the number is small—removed where there was a considerable destruction of the brain substance, and where the results were remarkable because of the fact that so small apparent injury was done as shown by the symptoms afterwards. I gather from Dr. Bremer's remarks that if he found a tumor located for instance at some depth in the brain, if he felt satisfied from the exploration that there was such a tumor, he would not proceed to remove it if it involved the destruction of any considerable amount of brain tissue. If this is his position it is essentially different from that of some who are operating now in that field.

Dr. Bremer.—The question is not so much one of the greater or less loss of brain substance. I do not suppose it makes much material difference whether the incision is a little deeper or a little more superficial; that probably would not make so much difference with the function of the neighboring parts; but as we know in malignant growths the tumor is substituted for the brain tissue; the boundary line is wiped out; and that is what we call a malignant tumor. Whenever the brain is infiltrated by the tumor, we say this is a malignant tumor. Now, I say such tumors are not operable because they will return, and it is hardly worth while to cut into the brain and expose the patient to the danger of dying on the table. On the whole we can not say that brain surgery is very promising as yet. The results which have been obtained so far are certainly not very encouraging; not very much has been accomplished, and I have serious doubts as to whether, so far as the life saving power of the operations are concerned, they will ever be very successful. Most of the cases which are reported as successes are reported two or three months after operation, and it can not by that time be determined whether they are successful or not.

Dr. E. H. Gregory.—I would say that it seems to me there is a little misunderstanding between Dr. Fry and Dr. Bremer. Dr. Fry knows there are two great classes of tumors; one grows into the tissues, and the other pushes the structures, in which they are imbedded, aside; therefore, the latter class of tumors are distinctly defined; the former class have no definite limits. If I understand Dr. Bremer aright, he means that in tumors which require that we should cut wide of them into the adjacent parts in order to remove all that is involved, we can not do this in the brain and not imperil the life of the patient; we almost certainly destroy life; therefore, he means that unless the tumors are distinctly defined they are beyond the reach of surgery if they occur in the brain. We know very well that a tumor may be located in the brain, covered by a portion of the brain substance, and yet when we have cut through the brain substance down upon the tumor, it may be peeled out, and thus have been removed; but it is absolutely certain that a tumor which is essentially an infiltration, when it occupies a position in the brain, is beyond the reach of rational reasonable surgery. I read but a few days ago in the *Globe-Democrat* of a man who had half of his head blown off, and the doctors were very much surprised that he got well, and the facetious editor of the paper stated that in time he might be smart enough to run for Congress on the Democratic ticket.

Dr. Young H. Bond.—The discussion of the chemical specimen of antipyrin, presented by Dr. Bremer, is now in order.

Dr. Gregory.—I merely wish to state that I have been using the drug most lavishly. I have had a box of it on my table and my children have been in the habit of going and taking it whenever they have a headache; they just guess at the dose. At first they gauged the dose, but now they simply guess at it. To be sure, my children are none of them very young. I have never seen any bad effects of the drug, but I shall certainly be very cautious hereafter; but for several years past I have been using it as a domestic remedy.

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Dr. I. N. Love.—I think that a remedy hich has not been with us longer than antiyrin, in spite of the tribute to its worth om such a source as this, should receive ıry profound consideration. The journals ıve contained many reports indicating its ınger. A number of fatal results have been ported, and a number of serious complica ons have been presented. So far as my own ıservation is concerned I will say that I ıve handled it considerably, yet I always el that I should handle it carefully. I beeve that quinine has been one of the most ıngerous remedies in the materia medica; ıe manner in which doctors have given it in ırge doses, and taken it themselves, has ıused much injury. I think there are many emoralized doctors from the taking of too ıuch quinine. I have seen doctors' families here the quinine bottle stood upon the tale, and the members were in the habit of ing it freely. I, myself, for a number of ars was under the impression that whenver I had a little cold or felt achy I must ke quinine. I got over that three or four ears ago.

Dr. Bond.—I will state to the doctor that he subject under discussion was a specimen nd report presented by Dr. Bremer in reard to a case of poisoning or supposed poiıning of a child by the administration of ntipyrin and sweet spirits of niter, and the uestion is whether such combination of remdies is deleterious. You were not present hen the doctor made his remarks.

Dr. Love.—I only spoke of quinine as an lustration, because I think it has been used o freely, and I think the manner in which me drugs are used indiscriminately should e discouraged, as there is danger in this adinistration of drugs by the laity and drugists, who are free dispensers of medicine. here is great danger in it, and such a report s Dr. Gregory has just made is apt to lead o harm, coming from so eminent an author-ty; for this reason I felt called upon to diect attention to the fact that a number of fa-al cases have been reported. So far as the ase reported by Dr. Bremer is concerned, I can not believe that two grains of antipyrin with sweet spirits of nitre could produce such a result.

I saw a case where a physician in the country was in attendance, who dispensed his own medicines, and he gave sweets spirits of nitre and antipyrin in solution, and it formed a greenish mixture something like an aniline mixture, but there was no bad result.

Dr. L. Bremer.—Without a microscopical examination, I believe that we are safe in saying that this is what the doctor supposes it was, namely, a case of acute yellow atrophy of the liver. It is claimed by some authorities that this disease is the result of some poison circulating in the blood, and that this poison has a predilection, a peculiar affinity for the cells of the liver which it destroys, because there is really a destruction of the cells going on; there is a rapid fatty degeneration. I think I have seen two cases, both in this country; I never saw one on the other side of the water; I believe they are comparatively rare over there, whereas here they are more frequent.

I saw a case while I was assistant at the City Hospital, a good many years ago. The patient came in, suffering evidently from malaria; after being at the hospital about eight days he died with all the symptoms of acute yellow atrophy of the liver, and that diagnosis was made before death by the physician who was in charge of the hospital. The post-mortem examination proved it to be correct.

I saw another case, which was the result of phosphorus poisoning. The woman had swallowed a lot of the points of matches with suicidal intent. She died in about two weeks after taking the phosphorus, and the same condition of the liver existed which we find here.

It is claimed by some that whenever true acute yellow atrophy shows itself, it is the result of phosphorus poisoning, so that when we meet with a case of this kind it is always in order to ask whether the patient has worked in a match factory, or an attempt at suicide has been made by eating phosphorus. Of course it is very difficult to decide who is

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right, as it is a very rare disease, and it is difficult to determine the cause of it.

Dr. Bond.—Did I understand you to say that there was fatty degeneration of the cells of the liver here?

Dr. Bremer.—Yes, sir.

Dr. Bond.—How do you explain the jaundice?

Dr. Bremer.—Whenever the cells can not secrete the bile, it is retained in the blood. The blood pigment and bile pigment are almost identical substances. Whenever the cells of the liver lose their power of extracting the deleterious substance from the blood, jaundice occurs.

Dr. Johnson.—Does phosphorus have that effect on the liver?

Dr. Bremer.—Yes, sir; there is a specific destructive effect upon the liver cells.

Dr. Bond.—I see Dr. Auler is present tonight, and we would be glad to hear from him on this subject.

Dr. Auler.—I don't believe I could add anything to what has already been said. During the time that I was coroner I met with one similar case. That is the only case I have ever seen.

Dr. Geo. Hulbert.—I have had the pleasure or misfortune of seeing three cases of this character while in charge of the female hospital, and they certainly were exceedingly interesting cases to me. I did not recognize the first case. One of my assistants, Dr. Williams, recognized it for me. I was struck with the picture that was presented to my mind after I had my attention called to the case. Dr. Fry has asked a very practical question, that is, whether we are enabled from the unusual symptoms presented by the patient to arrive at a diagnosis of acute yellow atrophy of the liver before it is fully developed. Speaking from my experience with these three cases I do not think we can: at least I could not until after the third day. The patients presented the symptoms that we generally see in gastro-duodenal catarrh; there was slight jaundice, a discomfort at the site of the duodenum, or especially about the liver, but no marked tenderness. The tenderness seemed to be confined more especially over the tract of the duodenum. There was a loss of appetite, and the patient presented a picture of prostration greater than the symptoms would account for. It seemed as if the patient was laboring under a poison or something that affected her in a very peculiar found manner. It does not take long for the disease to develop itself and become particularly well defined. In the three cases that I have seen the pain was very agonizing after the third day. Slight pressure over the liver would throw them into convulsions.

Postmortems were held in these cases, and in none of them was the spleen found enlarged, and in all of them the intestinal hemorrhage was present. The liver in one of the cases was not as small as this, neither was it so pale. It presented more the appearance as if it had been beaten with a club. The microscopical examination showed that the cells were infiltrated with fatty granulations and dark granular matter; there was no liver structure to be distinguished under the microscope. I was struck by the almost complete demoralization of the liver tissue presented. But the practical thing to me has always been that I had no difficulty in diagnosing the second and third cases that came under my observation, the first was so very vividly impressed on my mind. The first case lived only four or five days; the second lived longer, I do not remember exactly how long. Jaundice as a rule is not a very serious trouble, and these attacks of gastro-duodenal catarrh or duodenitis are not generally regard as being of any special importance, but since seeing these cases I have never had a patient come to me with jaundice that I did not think of acute yellow atrophy of the liver, and watch every symptom that would indicate that condition.

There is another point I think those gentlemen who have had considerable experience in the observation of this disease claim; that this trouble is more apt to occur in women, in women pregnant, or recently delivered.

As far as treatment is concerned I do not think any good can be done. I could not se-

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nplish anything in my cases, and it is con-ered a fatal disease, almost universally

)R. BOND.—Do you imagine you could be a common etiological factor in the cases ler your observation?

)R. HULBERT.—No, sir; the histories were y unsatisfactory; the patients were igno-t, non-attentive to their general health or fare. Two of them occurred in prosti-es and one in a servant.

)R. DORSETT.—So far as I have been able learn, the most constant etiological factor nental emotions. Now we all know that groes are not as susceptible to mental emo-ns as the whites, but as I stated in the his-y of this case, the woman was very much ached to a party who died and was buried the first of May, and when she came home m the funeral she was depressed and could be cheered up by any means.

frerichs speaks of the bitter taste fre-ntly present. This woman described the te in her mouth as like that of matches. may be that she took phosphorus with sui-al intent, and that may have caused the uble. Syphilis and typhus fever are given causes. Dr. Hulbert said that this disease quently follows delivery. That has cer-nly not been usual so far as I can learn m my reading on the subject. It is stated at the trouble very frequently accompanies gnancy, and is one of the causes of abor-n; that the patient affected with this dis-e will often abort, and the fetus is never ndiced, but the mother always is.

)R. A. GREEN.—I can not believe that the otions can cause such a disease. There st be a poison circulating in the blood. e question is, is it a chemical poison or a ing poison. The case ought to be exam-d, as there might be evidences of phos-orus poisoning, but I am inclined to think is a living poison.

)R. BREMER.—I would ask Dr. Dorsett if inquired specially whether phosphorus was ten in this case with suicidal intent, be-use if there was a taste of matches it might a case of phosphorus poisoning. It is claimed by some authorities that every case of acute yellow atrophy is caused by phos-phorus poisoning.

DR. DORSETT.—In reply to that question I will say that I was particular in asking the lady for whom this servant worked if she complained of a bitter taste in her mouth. I did this simply because from the reading I had done on the subject I gathered that this was a symptom of the disease, and she said no; but she stated that she had a taste as if she had been eating matches. Now whether the woman really did eat matches with sui-cidal intent or not, I do not know. If she had taken phosphorus with suicidal intent I think she would hardly have spoken of this taste.

DR. HULBERT.—I would like to say a word in explanation. Dr. Green seems to have re-ceived the impression that abortion causes yellow atrophy—at least oe seems to have thonght either I or Dr. Dorsett so stated. I meant to say that they accompanied preg-nancy and did follow delivery. I have seen the statement made somewhere. Pregnancy seems to have some influence in the develop-ment of the disease, according to the au-thorities.

DR. BOND.—I see some gentlemen present who attended the National Medical Associa-tion and we would be glad to hear from them.

DR. LOVE.—I attended the convention and it was a very successful meeting as regards attendance, the character of the gentlemen present, and the number and character of the papers presented. I, of course, was more in-terested in my own section (the pediatric), but I attended some of the meetings of the general session. The addresses of Drs. Rob-erts Bartholow, of Philadelphia, and E. M. Moore, of Rochester, and E. A. Wood, of Pittsburg, in the general hall were very in-teresting.

The place of meeting at Cincinnati was a very excellent one, Cincinnati being one of the cities which should be selected as a place of meeting for the association, in that it has an exposition building and music hall, with

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good appointments, and gives accommodation for all the association and the various sections. I think this is important. Such was the case here; there was no trouble in finding the sections and in getting about. Where the association meets in cities which have not these accommodations the delegates get scattered and some of them yield to the seductions and allurements that lie between the various sections, and the sections suffer. This was the case at Chicago, as we all remember. The accommodations at Cincinnati were ample, the arrangements perfect. The entertainments were all interesting, both public and private, and the city seemed to be in gala attire; they were roused to the importance of the convocation. There were many private entertainments given, many private dinner parties, but one feature was marked so far as the entertainments were concerned, there were no private houses open for general reception. The Art Gallery and the collection of paintings is a credit to America; the buildings are magnificent.

The topography of Cincinnati is peculiar, the business portion being near the river, and the residences being upon the surrounding hill-tops. You can not reach the residence portion of the city without passing through a cordon of bad odors, no matter what route you take. We went by one route and returned by another in order to avoid it, but could not do so. The residence portions are very beautiful. There was one reception given at the Art Gallery, the museum in the Eden park.

Speaking of the work done in my section (the one in which I took the most interest, of course), there was a most interesting report made on infant feeding by the committee appointed for that purpose. I was somewhat surprised at the tenor of this report. One point in particular was that many of the reporters and observers pronounced against artificial digestion of food. This is not at all in keeping with my own experience. I feel that I would be robbed of one of the most important adjuvants in the treatment of my cases both amongst infants and adults in wasting diseases such as typhoid and other fever if I were deprived of artificially peptonized milk. The general tenor of this report indicates that there must be something wrong in the observations on which it was based. I think the matter should be further investigated, and I hope the gentlemen of this society will appoint a committee for that purpose.

The gentleman who, in my opinion, made the most pronounced impression upon the convention from every point of view was Dr. Nicholas Senn, of Wisconsin. I did not hear his report, nor see his demonstrations. He performed certain experiments upon a dog under chloroform, demonstrating a new method of determining the existence or non-existence of perforations of the alimentary canal in abdominal wounds.

I was surprised to find that he is so young. I was also surprised to see that many of the leading men connected with the medical profession of Cincinnati are young men; a number, with whose names I have been familiar for perhaps twenty years, were younger looking than any of us present here. One of the leading surgeons looked like a mere boy.

Dr. Thomson.—Very good work was done in the ophthalmological section. The time was too limited to complete the work. Through the efforts of Dr. Seiler, of Philadelphia, Dr. Daly, of Pittsburg, and Dr. Potter, of St. Louis, a section for laryngology and otology was made. Heretofore the section on laryngology and otology has been united with that of ophthalmology. This division is greatly to the interest of both sections.

In an article published in a recent number of the *Med. Rec.*, Dr. Castle presents in so clear a manner a matter of great importance to the profession, that we reproduce his paper in its entirety. Our readers will do well to note carefully the facts which Dr. Castle presents. Though they are universally known they are too likely to be forgotten when occasion arises to profit by them.

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ORIGINAL ARTICLES.

HYDRIODIC ACID—ITS USES IN GENERAL PRACTICE.

BY WM. C. WILE, A. M., M. D., DANBURY, CONN.

Ex-Vice President of the American Medical Association. Member of the British Medical Association. Editor of the New England Medical Monthly, etc.

The difficulties which were in the way of the use of hydriodic acid, because of its rapid decomposition, were considered, so insurmountable, that it was not until the year 1878, when an unalterable syrup was presented to the profession, that it came into use.

Soon after this, in 1880, my attention was attracted to an article by Dr. J. B. Oliver, of Boston, which was published in the *Bost. Med. and Surg. Jour.* of the issue of March, 4, of that year.

Dr. Oliver in his paper alluded to the use of syrup of hydriodic acid, in the treatment of asthma, and in conclusion says, "that Dr. Knight had surprisingly satisfactory results", from the same remedy. Having under observation at this time a severe case of chronic asthma, complicated with chronic bronchitis, on which I had tried iodide of potassium, which was intolerable to the stomach, I at once put the lady, a woman of 49 years upon the syrup of hydriodic acid. The effect was all that could be desired. There was an almost immediate relief from the asthmatic conditions, rapid amelioration of the cough, decreased expectoration, which was very profuse before the exhibition of the remedy.

The sputa which was thick and viscid, became thinner in character, and my patient's general health commenced to improve, and after three months of the use of the syrup of hydriodic acid, in increasing doses till two teaspoonfuls were taken three times a day, complete recovery took place, and from that time until her death of pneumonia, two years later, had no relapse. The results in this case were so satisfactory, that ever since it has been my favorite remedy in all asthmatic troubles, and though not every case has yielded as promptly and effectually as this one, still I have never administered it in this class of diseases, without unmistakable evidences of relief and comfort.

In chronic bronchitis, in my hands, it has produced most excellent results, and can be given when iodide of potassium cannot for a moment be tolerated.

The cases which seem to derive the most benefit from this remedy are that class of long standing bronchitis, when the lungs seem about to take on a deeper seated and less tractable form of disease. My attention has been frequently called, in the treatment of chronic bronchitis with hydriodic acid, to the fact that small doses, frequently repeated are of signal service, when larger doses do not seem to accomplish the same results. In fact, from long experience, I would suggest the constant use of the syrup in small doses, 15 drops, gradually increased a drop a dose, until the point of toleration is reached in order to get the most satisfactory and lasting results.

While practising at Sandy Hook, Conn., I had the opportunity of observing its action in lead poisoning in a great many cases, lead entering largely into the compounds which are mixed with the crude rubber during the process of manufacture. I depended almost entirely on the syrup of hydriodic acid for all forms of chronic lead poisoning. In lead paralysis, this remedy combined with keeping

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the bowels quite free, and the application of the Faradic current, were the only means employed, and always with satisfactory and oftentimes surprising results. Wrist drop and chronic abdominal pains would yield to the remedy, combined with saline cathartics. In scrofulous diseases of children especially, does the hydriodic acid seem to produce the most marvelous results. In infantile eczema, enlarged glands, cold abscesses, indolent sores, treated with small doses gradually increased until it is all that can be borne, it will prove a source of great gratification to the patient, and gratitude towards the doctor.

At the suggestion of my friend, Dr. F. A. Burrall, of New York, I am using it in a case of obesity, with the result of steady diminution of the amount of fat, without a single disagreeable symptom, or interference with the general health, or the action of any of the functions of the body. In hay fever it has been used by other observers with good results, but my experience with its use in this disease has been nil.

It is hardly necessary for me to more than say that in all the latest stages and manifestations of syphilis it has yielded its most magnificent results. Pleasant to take, rapidly pushed to large doses, I have found the most pronounced and favorable effects. Patients take it readily, and the improvement is so rapid and immediate that they need no urging to continue its use for as long a time as the doctor deems desirable.

My paper has reached the limits which I prescribed for it, but I can not resist the temptation of recording briefly three of the most unique cases of my experience with this drug. The one was a man æt. 42 years, who was a paper-box manufacturer, suffering from arsenical poisoning from the inhalation of arsenical dust arising from the glazed paper which he handled and cut. After repeated trials of other remedies, the syrup of hydriodic acid mad complete cure inside of a month.

In Danbury, the city in which I now reside, they make large quantities of hats, in fact, it is said that at least one-half of the hats made in the United States, are made in that place. To preserve the fur, carrot is used which is composed largely of mercury, consequently, many of the hatters working in the plank-shop suffer from mercurial poisoning, and many from mercurial tremor and paralysis. No remedy has proved of so much value to me as the hydriodic acid, always prompt in its effects and reliable in its results. The last case was one of chronic rheumatism, in a man thirty-seven years old. He was almost a complete cripple in his hands and feet, and had not done a stroke of work in two years. I had exhibited every remedy known to me, including electricity, massage, Turkish baths, colchicum, etc., but until I commenced the use of the hydriodic acid no permanent improvement was made. After continuing its use for four months the patient seemed, and was to all appearances entirely well. For fear of relapse he continued taking it for two months, in order as he explained it, "to make assurance doubly sure". I do not believe that this remedy is enough understood, nor the advantages it posseses over all other forms of iodine, as thoroughly appreciated as it should be, but of this I am assured, that it will be tolerated by the stomach many times when no other preparation of its class can be retained, and do work that none other will. It is scarcely necessary for me to state that I have never used any other preparation than that of the originator of the unalterable syrup of Mr. R. W. Gardner, of New York.

WINTER CHOLERA.

BY C. G. SLAGLE, M. D.,

Lecturer on Diseases of Children and Dermatology, in the Minneapolis College of Physicians and Surgeons.

Read before the Hennepin County Medical Society May 21, 1888.

MR. PRESIDENT, LADIES AND GENTLEMEN.—My position as chairman of your committee on epidemics, has enabled me to supplement our report, by a paper on one of our most prevalent epidemics which has been popularly called "Winter Cholera," an

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acute gastro-intestinal catarrh which, as you are all well aware, has been prevailing here extensively in epidemic form, since about the first of the present year; and to some extent, as we shall endeavor to show you, both in neighboring and somewhat distant localities throughout the North and West, although evidently nowhere else nearly to the extent that it has so recently existed in our own city.

From the best information which we have been able to obtain, from a pretty extensive correspondence with representative physicians in various parts of the country, we learn that this affection has prevailed to some extent, more or less every winter, at least since that of 1882–3, in various places, and to a comparatively light extent during the present season, in many places throughout the Northwest.

As an evidence that this affection has existed in this vicinity and been known by the popular name which it now bears; as long ago as 1882, I will read you from the *Northwestern Lancet*, issue of March 15, 1883, a report of five cases of winter cholera, by Dr. Talbot Jones of St. Paul, and from which we learned the affection then existed in several points throughout the Northwest; notably at Red Wing, Owatonna, Winona, and other points in Minnesota, and that it had already been christened "winter cholera." Indeed, we have not been able in this investigation, to ascertain just when it first prevailed, nor who gave it first its now familiar name. Dr. Jones remarks, "the disease prevailed pretty extensively in Chicago and several other cities last winter," 1882. He details the symptoms and management of his five cases, and as they were so typical and analogous to the great majority of our cases witnessed here recently, I will quote one case in his own language as a fair sample of our own.

"Case IV, Miss L., age given 18 years, probably 26, after experiencing a general malaise for a day or so, was suddenly attacked in the night with violent nausea and vomiting. Simultaneously purging began. The matter discharged by vomit and stool was thin, yellowish or grayish-yellow, then white, odorless, and consisted of sero-mucous and cast off epithelium, the so-called "rice-water" discharges. The discharges followed each other in rapid succession, and quickly reduced the patient's strength. The surface of her body was cool and covered by a clammy sweat; there was great irritability of the stomach, which for a while rejected everything, and an intolerable thirst. The face had a pinched expression, and the voice became quite husky.

Owing to this rapid dehydration of the tissues there was for a time, a complete suppression of the urine, and painful cramps in various muscles of the body. The temperature was 97°, and the pulse small and weak.

These symptoms continuing for some time, the patient passed into a dangerous state of collapse, and probably owing to sudden anemia of the brain, experienced a mild form of delirium. It required energetic measures to save her life. Hypodermic injections of brandy and morphine, swathing the limbs in flannels wrung out of hot alcohol, constant rubbing and friction of the body, and hot applications over the abdomen finally accomplished the desired result.

With regard to the etiology, nothing could be discovered. Her hygienic surroundings were excellent, and the disease apparently more the result of a specific poison than errors of diet or a vitiated atmosphere.

The temperature, first depressed, slowly reached the normal and then passed beyond it into a mild fever of a remittent type."

You will all readily recognize this faithful picture as a typical case of what we are now discussing under the name "winter cholera."

With a view of ascertaining the extent of its prevalence during the present epidemic, I have lately addressed letters of inquiry to various parts of the country, and will here read you some of the responses received.

Dr. Talbot Jones, St. Paul, May 8, 1888, "I have seen only about ten cases here during the prevalence of your late epidemic, and they were all undoubtedly contracted in your city. I have not heard of a case arising spontaneously in St. Paul."

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Dr. Rosser-Brainard, Minn., May 14, 1888.

"The disease has not appeared among us here in an epidemic form, though several cases came under my observation recently, which were undoubtedly contracted in your city."

Dr. Berry, New Ulm, Minn. May 10, 1888.

"I have only had two patients with 'winter cholera,' this season; both from your city."

Dr. J. L. Blanchard, Ann Arbor, Mich. May 8, 1888.

"We have had no very wide special epidemic of such trouble as you mention, this winter, though more than usual with us."

Dr. Judson Bradly, Detroit, Mich., May 12, 1888.

"Have seen none here myself and have not met a doctor who has seen any 'winter cholera' here."

Dr. E. Ingalls, Chicago, May 8, 1888.

"Some winters we have had much 'winter cholera,' but not much this winter. I do not know who gave the disease its popular name."

Dr. Winsor, Cleveland, Ohio, May 8, 1888.

"We have no such disease as you mention in our city."

Dr. Wm. Atkinson, Philadelphia, May, 1888., . I have noticed an unusual prevalence of diarrhea and similar affections here recently, but nothing like your "winter cholera."

From these we learn that it is not altogether a new disease in this northwest, nor was it born in Minneapolis, nor probably christened here, still we are induced to believe from the best information obtainable, that it has never prevailed anywhere else so extensively and persistently as it has done here within our city limits, since about the first of January of the present year.

I am myself just recovering from the third distinct attack. The attacks in myself have been three or four weeks apart and lasting more or less for eight or ten days each. I am sure the recovery was good between attacks, and therefore they were not relapses.

In my own case the etiology has been as obscure as in that of most of my patients.

From individual inquiries I have also ascertained that quite a number of cases have been seen recently at various points within a radius of 80 miles of our city, though not to an extent that would justify us in reporting it epidemic anywhere else. In this assertion we may mention, Northfield, Owatonna, Henderson, Anoda, Stillwater and many other places in our own state.

It has been affirmed by those in a position to know, that fully one fourth of our entire population, have been affected more or less with this affection during its late prevalence here. And indeed so extensive and persistent has it seemed to be localized here as to have attracted the attention of our state board of health, who have sent out circulars of inquiry to a number of physicians practising in this city, in order if possible to ascertain the cause and extent and prevention of its prevalence here.

Many of our physicians have responded to their inquiries and the report and conclusions of our "state board" will be looked for with considerable interest, although, without presuming to forestall the result of their investigations, I may perhaps be allowed to anticipate somewhat by suggesting that they (like ourselves) will find it to be really another of these "imponderables," so many of which confront us in the field of etiology, but which it is not impossible the lights of scientific investigation in these new fields of bacteriology may yet illuminate.

The disease seems to have been recognized as a "catarrhal affection," by most physicians who have expressed an opinion of its nature. Hence the synonyms, "catarrhal follicular enteritis, "influenza of the bowels," acute gastro-intestinal catarrh," etc.

In our "health mortality reports," we find no deaths recorded under the name "winter cholera" but we do find for January 9 deaths; for Feb. 9 deaths; March 19 deaths; April 11 deaths from "gastro-enteritis, making a total of 48 deaths from disease of the intestinal tract during the four months of its prevalence here, and most of which we feel justifiable in ascribing to this affection, as our health officers would not accept, on record, the unscientific name "winter cholera."

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The general opinion of the medical profes-
n here seems to be that it may prevail
her sporadically or epidemically, that it is
t in the least contagious, or infectious, that it
evails during the season of influenzas, that
is probably atmospheric in its etiology,
r as we have stated in our "report on epi-
mics") we can easily show where it has ex-
ed to a considerable extent in parts of our
y where the general hygienic conditions are
ceptionally good and where the water used
r drinking was taken from new wells and
s as good as can be found within our city
nits—on the other hand we find a consider-
le number of individuals and even house-
lds, who have escaped an attack altogether,
twithstanding the fact that they have used
ly our impure city (river) water for all
rposes.

That much water drank during an attack
ll aggravate the symptoms is undoubtedly
ue, however pure the water may be; and
is we would naturally expect from what we
ow of the nature of choleraic affections
here dehydration of the tissues so rapidly
curs.

The symptoms in general are, as faithfully
rtrayed by Dr. Jones, lassitude, thirst, nau-
a (in many cases vomiting), with more or
s pain in the abdomen, cramps in the mus-
s (especially of the legs), sudden and fre-
ent watery stools, at first much resembling
e "rice water" discharge of Asiatic cholera;
ated tongue, coldness of surface and ex-
emities, subnormal temperature, rapid ex-
austion, total loss of appetite, scanty urine,
ick and feeble pulse, countenance pale and
nched, and breathing weak and slow, etc.

The watery dejections are very copious, and
often as every 15 or 20 minutes for several
ours if uncontrolled by remedies; and we
id these grave symptoms very stubborn
en under the administration of large doses
opiates, stimulants and astringents. It
s been a notable fact, too, that some of the
ost sudden and rapidly exhausting attacks
ve not been attended with pain in the
owels, and these most resembled genuine
siatic cholera, and were very distinct in all
atures from cholera morbus.

After the acute attack, and generally on the relapses, which were frequent, the temperature rose a little above normal (100° to 101°), and the stools were less watery and generally became quite offensive, which was seldom the case at first.

The duration of the disease has been various, according to the nature of the attack, the time and character of treatment, and the general management of the case. I should be inclined to place the average duration at about five to seven days under favorable circumstances and good management.

From the violence of many of the attacks we are surprised that it has not been more fatal than reports show; doubtless many cases would have been rapidly fatal, without prompt and efficient treatment. Nevertheless those who have died from this affection, so far as we can learn, have generally been those who have not had the attacks so violent at first, and who have either had none or only irregular and inefficient treatment and care, and who got better and relapsed several times, and thus gradually became anemic and enfeebled, or who had been suffering from a complication of chronic affections to the attack of this affection. Have seen two die from this disease under the circumstances here detailed, and the only fatal cases of this which have come under my own observation.

I apprehend the greatest difficulty which we all have had to deal with has been in failing to secure the co-operation of the patient or friends, in carrying out our instruction in regard to diet, drinks, quietude and the various details which constitute an efficient treatment in all such affections. Indeed, I know of no disease where the "regimenal" treatment, dietary, etc., is of more importance to effect a perfect cure and prevent relapses than the one under discussion; and this is not strange when we reflect on the real nature of the affection, as we presume it to be a "catarrhal affection of the gastro-intestinal tract," affecting extensively and rapidly not only the mucous coat, but also the various glands of the bowels, and at once deranging

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the entire processes of digestion, nutrition, etc., and having a tendency to become seated in tissues only amenable to treatment in a slow, patient and persistent manner; and, as might be expected, he who only fixes his attention on stopping the discharge from the bowels by powerful opiates and astringents only aggravates the patient's morbid condition, and thus either retards recovery or precipitates a fatal issue of the case.

As to the "morbid anatomy" of this affection, I am sorry to be compelled to say that I have had no opportunities of post-mortem investigation on any case that proved fatal, nor of consulting with those who have had autopsies; and as our text books and medical journals have not yet afforded us any information on this part of our subject, we will have to wait for further opportunities to investigate.

We may be allowed, however, to suggest, after the late experience we have had with it in this city, that it is an affection of considerable importance to investigate, not only from the immediate danger of fatality, but from its stubborn sequences, as, first, rapidly depleting the blood and enervating the entire system; second, impairing digestion and nutrition; third, its tendency to extensively disease the glands of the bowels; fourth, to aggravate pre-existing disease, and, lastly, to develop latent predispositions to other affections, often of a very serious nature.

It would appear to us that the principal indications to be met with treatment in this rather stubborn affection would be:

First, to quiet pain and subdue vomiting or nausea, when present, as they are in most cases.

Second, endeavor to establish reaction by supporting the rapidly failing vital forces.

Third, to check and control the excessive discharge from the bowels.

Fourth, to restore nutrition, and thus endeavor to repair the loss as speedily as possible.

Fifth, to anticipate relapses, which are so common, by every possible endeavor.

The therapeutic remedies tried to meet these indications have been various. With strong opiates and astringents I have been disappointed, as a rule, excepting as mere auxiliaries to other and more efficient remedies. In some pain and nausea at first, however, have sometimes got good response from large hypodermic injections of morphia and brandy; this, together with strong counter irritation over abdomen, dry heat to extremities, and a small powder, every half hour of calomel, ¼ grains, sub. nit. bismuth, 3 grains morphia, 1 20 grain. Of these I would give 4 or 5, according to severity and persistence of the symptoms. As soon as these first symptoms are subdued give "chloranodyne" (20 to 30 drops) in brandy and water every two or three hours—this until pain and nausea are subdued, discharges checked and reaction restored. Meanwhile, for thirst, give lime water and ice, and sub. nit. bismuth in boiled water, and brandy, if tolerated well by stomach.

After first violence of the disease is thus subdued have had good results from following powder:

Sodæ salicyl ℥ij, bismuth, subnit, ℥ij, lacto pepsin, ℥ij, pulv. opii grs. xii. Ft chart. no. xxiv. Sig. One every 4 or 5 hours in sweet milk or brandy and water.

This is to be alternated with the following cordial:

Ol ricini, ℥i; tinct. opii, ℥i; f. e. gerani, ℥iv; syr. rhei aromat., ℥iss. Sig. One or two teaspoonfuls every 4 or 5 hours.

For tonics and restoratives have found nothing better than ferro-phos. ex. gent. and Fellows' comp. syrup of the hypophosphites. I know no other laxative that will so well meet the requirements of these cases as small doses of castor oil (a teaspoonful three or four times a day, later on in the disease).

The bill of fare which I have prescribed for first four or five days has been tea, coffee, milk (with lime water), stale bread, crackers, toast, rice, corn starch, mutton or beef broths, eggs (soft cooked), egg-nog, "bovinine," "Carnrick's Food," "Golden's Liquid Beef Tonic," "Imperial Granum," etc., with no meat, fruit nor vegetables.

I desire to repeat that I know of no other disease where dietary and regimenal management is of more importance to insure satisfactory results from your therapeutics.

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SATURDAY, JUNE 9, 1888.

TRANSPLANTATION OF NERVE TISSUE.

A preliminary statement of a most interesting and promising operation by Dr. Gersung, ıssistant to Billroth, is made by the *British ed. Jour.*, of May 19. If the report is true and the data come from the operator himself—Dr. Gersung has opened wide the field neurotomy by the transplantation of a ction of the nerve of a rabbit to supply the ace of diseased nerve tissue in a man.

The patient was Prof. von Fleischl, occupant the chair of physiology in the University Vienna. Some sixteen years ago he suffered a severe inflammation of the right arm, duced by poison from a cadaver. During e course of a long illness the terminal ıalanx of the thumb became gangerenous, ıughed, and finally reamputation was made cure the painful stump, neuromata formed, e digital branches of the median nerve ere resected, other neuromata developed, rection of the central part of the same anches was performed, and also resection the digital branches of the radial; again e neuromata formed and failed to yield to eatment by injections of hyperosmic acid ıd electrolysis. Two years ago the neuroata were again resected, this time as far as e volar carpal ligament; at this time the anches which supply the radial and ulnar des of the index, as well as the radial side the middle finger were resected to a great tent. Following this, anesthesia of the refinger became marked, except the dorsal pect of its first phalanx, which is known to be supplied by the radial: in the same way the whole radial side of the middle finger became anesthetic; the pain however was not relieved, and the sufferer became aware that a new neuroma was forming. He applied for an operation to obtain at least temporary relief, and this demand furnished an opportunity for the operation referred to.

On March 4, chloroform was administered, the neuroma which was situated behind the ligamentum carpi volare was excised, the nerve being cut through behind the bulbous point, the peripheral nerve stumps of the two digital branches above mentioned were then sought for, and being found were bared for the next stage of the procedure. A rabbit was now killed, and as long a piece as possible of the sciatic nerve with its two terminal branches was excised, (the animal still presenting involuntary contractions), this strip of nerve tissue, with its ramifying periphera was inserted into the space between the central stump of the medium nerve and its digital branches, the central end of the sciatic was sutured to the connective tissue which covered the median nerve, and the two branching ends were sutured to the two digital branches of the same nerve, the portion of resected nerve in length about six centimetres was thus made up. After the operation severe pain supervened which continued, however, for only a few hours, and then subsided.

Two months have elapsed since the operation, no pain has been felt, and, gratifying to relate, sensibility in the part, tributary to the peripheral part of the excised nerve, is returning. No detailed report has been made of the case by the operator for the reason that too short a time has elapsed to justify a favorable report, and he is hopeful that perfect sensibility, and entire restoration of the function of the part may be reported at a later date.

Should the result in this case meet the promise, it is more than probable that the operation will be called for in cases of nerve injury, division for instance long neglected, and also in cases where nerve tissue has been de-

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stroyed by bone callus and when diminution in size and tone have followed pressure from cicatrices.

Ergot in Subinvolution.

Within the past few years statistics on various medical subjects have increased so rapidly as to lead many in the profession to believe them fictitious, and consequently worthless. Fortunately, the surest test of the value of a remedy is to compare the results obtained by its use with a like number of cases in which no remedy whatever is used. This method of investigation is especially needed in the field of therapeutics. Many drugs are given on theoretical principles; for instance, ergot was found to produce contraction of the uterine fibers when given during labor, and from this it was concluded that the use of this agent would accelerate the process of involution. The *Brit. Med. Jour.* gives the following account of observations recently made by Emile Blanc. Of ninety-two women who had gone through normal labor, forty were left to nature, forty were treated with daily hypodermic injections of ergotin for five days, and twelve were similarly treated for ten days. Daily external measurements were made, and on the fifth and tenth days the uterine cavities were measured by means of the sound. It was found that the use of ergot during the first five or ten days failed to produce any favorable effect on the process of involution, but on the contrary it seemed to delay the normal retraction of the uterus.

Failure to Find the Colon in Lumbar Colotomy.

In a communication to the *Brit. Med. Jour.* May 19, C. J. Bond, F. R. C. S., says that it is probable that the differences in the tables of statistics as to the presence or absence of a complete peritoneal covering of the ascending and descending colons, may be accounted for by the varying amount of distention of the bowels examined. He says that by distention the posterior wall of the colon is made to approach nearer the abdominal wall, separating the layers of the peritoneum which bind the gut to the wall.

If Mr. Bond is correct in his observations why should not the colon be distended with hydrogen gas just before the operation. It is seldom that the lower part of the canal is occluded so completely that the gas could not be forced through the constriction. The gas might be introduced through the stomach. If the surgeon be in doubt after making an opening through the tissues, whether or not it is the colon presenting, the question may be decided by introducing a needle and drawing off some of the hydrogen gas.

Heart Involvement in Diabetes.

In the *Brit. Med. Jour.*, for May 5, Jacques Mayer, M. D., of Carlsbad discusses the relationship of heart disease to diabetes. He divides diabetic patients into three classes, viz., 1, those of vigorous healthy appearance and lively animated expression; 2, those of feeble and delicate constitution, more or less pale complexion, and a timid and anxious expression; 3, these of full obese physique, but who may be at the same time pale and sallow or of a livid and unnatural color. In the early stages of the disease, there are to be found no organic lesions of the heart other than might exist in patients free from the diabetes, and in the later stages (and the writer insists upon the divisions early and late stages rather than mild and severe forms) the cardiac appearances differ in the three classes of patients; in those of full vitality, the muscular tissue undergoes an indiopathic hypertrophy—especially the left ventricle—there being no appreciable dilatation.

In the second class of cases *i. e.*, those poorly nourished and more or less enemic an endocarditis has been seen by the writer to supervene, but a much less tendency to hypertrophy of the organ than in the former class, the difference being that the demand for repair material, is the more freely met in this class of cases, by donation from the substance

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the organs themselves, thus lessening the nand for rapid oxidation of the blood and isequent rapid circulation; of course, in s latter class the progress of the disease is ch more rapid, a fatty degeneration nec-arily adding its destructive process to the er wasting features of the lesion. After disease has progressed for some time, the ysical signs become well marked and serve differentiate between the two classes; the ter says the progress of the case is an aid prognosis; in the case of hypertrophy, the ease is often seen to battle unsuccessfully its mastery for years, while in the case of rocarditis, and mere dilatation, the ter-nation will invariably be more rapidly fa-

The writer makes very clear his view in ounting for the cardiac changes; in diabetes production of sugar and urea are both ex-sive, and it is the mechanical irritation up by the passage of these through the rt that causes the cardiac involvement, al-it will be admitted, he thinks, that the be rior of the heart muscle need not differ m that of the voluntary muscles, in the tter of the acceptance of unusual work, l in these unusual exercise is met by a cor-ponding growth in the body of the mus-. However, in the case of the voluntary scles, the hypertrophy will appear to sat-y the demand only when the nourishment bundant, and this is explanatory of the t that the heart, in poorly nourished diabe-s, dilates under excessive work instead of ponding to the new call.

He supports his theory that the hypertro-y is due to mechanical irritation, by citing ne experiments made along this line by avitz and Isreal, who produced hypertro-y of the heart in two ways in rabbits, 1st, by ting up a chronic nephritis, and 2nd, by moving one kidney; the failure of the in-ned kidneys in the one instance, and the s of half the operating kidney substance in other, made complete elimination of ef-e matters from the blood impossible, and refore an opportunity was made to test the chanical effect of these matters upon the rts of the heart.

He insists that the prime factors in the treatment of this trouble must be found in catering to the demands of the heart and kidneys; all organs in a hyperactive condition are susceptible to diversions from legition channels, and easily became diseased. The suffering organs must be protected by every possible means, and while a strictly nitrogenous diet cannot be insisted upon in many cases, this impossibility may be largely atoned for by a liberal administration of milk, and other dietetics of like nature.

Tuberculosis vs. Cancer.

The *Med. Reg.* for May 12, devotes quite a good deal of space to a circular letter, written by Dr. John Francis Churchill to the Registrar General of England, having for its text, "The Relationship between Tuberculosis and Cancer.

The basis of the writer's position is the assumption that the prime factor in causation of cancer is the excess of phosphorus in the system over and above the legitimate requirements, and that the tubercle, or rather its development is due to a paucity of that element in the body. The two diseases are, therefore, antagonistic, he holds, and what will serve to dissipate the one will be actual food for the other. Reasoning along this line, he attacks most violently the common employment of the hypophosphites in the treatment of tuberculosis, and finds that as the latter decreases in frequency, just in the same ratio, cancer increases. In substantiation of this position he presents an array of figures, taking the period between 1855 and 1885 for his purpose.

A summary shows the total increase of cancer for the 30 years, to be 74 per cent, and the decrease of phthisis to be 61 per cent. He holds the injudicious use of hypophosphites responsible for the increase of cancer, while admitting that the decrease of phthisis is due largely to their employment.

A part of Dr. Churchill's paper is devoted to the etiology of the two diseases.

Phthisis is primarily due to the absence of

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a sufficient quantity of easily oxidizable phosphorus in the system, (for which theory the writer claims paternity), while on the other hand, cancer springs from a diametrially opposite, source, that of too much phosphorus. To give weight to this last assertion he cites the fact that cancer tissue closely resembles that of the brain, and contains a large quota of phosphorus. The point is made that herbivorous animals, whose food contains much less of the sulphide element than is found in flesh, suffer frequently from tuberculous affections, while in the carnivora the reverse is the case.

His theory also assists in the explanation of the fact of the greater frequency of tuberculosis in early than in middle, or in late life; the phosphide element is very active in the promotion of cell growth, and during youth, is in constant demand to repair tissue, and supply material for the development of the body. Thus the supply of the element may become low, phthisis is in that way developed, while on the other hand, cancer is seen rarely in early life for the same reason.

The paper concludes with a severe drive at the soda-water industry of this country.

Heat Fever—Treatment.

In the *Am. Journal of Med. Sciences* for June, 1888, Dr. F. A. Packard, resident in the Penn. Hospital, presents in tabulated form some observations made in 31 cases of "heat fever" which, beside being of great value as a guide to the successful treatment of the disease, give some interesting statistics.

It is of interest to know that out of the 31 victims, taken indiscriminately as they came in, only 3 were natives of the United States; that in the whole number only one was given credit for being "temperate" as to alcohol, and he was a Philadelphia liquor dealer; but the legend "temperate" is materially softened down even in this case by a question mark in parenthesis immediately after it; the remaining 30 cases were labeled either "hard drinker," "moderate" or "unknown;" that the temperature taken per rectum reached in one case 112° F.

The treatment, as laid down, is worthy of careful consideration, and briefly told was as follows: Temperature taken immediately after patient was stripped and placed upon a water proof fracture-bed; those in whom the thermometer registered above 106.4° (per rectum, that surface douching might not defect), were packed in ice—body and extremities; usually ℥xx tr. digitalis given hypodermatically; thermometer removed every seven minutes, the icing being continued until the temperature fell to 104° F., patient was then dried and placed in a clean bed with an ice-cap to his head.

It was found that in favorable cases normal temperature was reached gradually without further active interference. If the temperature again rose sufficiently high to indicate the need of the first procedure, it was repeated. In cases where the temperature did not rise above 106.4°, patients were liberally sponged with a mixture of one part alcohol to four of iced water, an ice-cap being applied to the head. In only a few cases were other antipyretic measures adopted. When convulsions were present morphia was employed, usually with good effect. Where respiration and pulse did not improve *pari passu* with the fall of temperature, bleeding was employed in spite of feeble pulse, and was almost invariably followed by quieter, fuller respirations, with soft, steady pulse. As to bleeding, it was found that wet cups behind the ears failed to abstract more than a few drops of blood, and that of a black, greatly altered character. The median basilic vein was generally employed when substantial depletion was required, as was the case when the respiration or heart beat was impeded by congestion.

Antipyrin in Epilepsy.

M. Fraty, discussed before the Lyons Faculty of Medicine (*London Med. Rec.* March 20, 1888) the influence of antipyrin on the convulsions of epilepsy. His deductions

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om experiments in twenty cases, while not assuring as to epilepsy, are valuable as giving much needed light on the physiological tion of a drug which is at this time very tle understood. He sums up as follows: 1. Antipyrin possesses an influence on epiptic convulsions, at least in some cases; 2, action resembles that of the alkaline brodes; 3, to obtain its effects, it must given in doses of from 40 grains to 2 ams daily; 4, the moderating effect hen present is transitory, and the atcks recur more violently than ever on the ssation of the treatment, and even during continuance if prolonged."

It will be clear to all that the remedy cant apply to the disease in point, in any great mber of cases, but the finding of the riter will go far to show that the effects of ntipyrin are, like those of quinine and calomel, and many other valuable drugs, variable cording to the size of the dose. Antipyrin id the craze now extant in its favor, will reall a similar general feeling in regard to quine, of some two years ago. The drug is o valuable to be allowed to grow obnoxious y its indiscriminate and unwise application. lowever, experiments of the nature of those ade by M. Fraty, will serve to delineate the gitimate uses of the drug.

Prognosis in Albuminuria.

At the Islington Medical Society, Mr. H.F. tokes recently reported a case which in conection with the discussion that followed will o far to lighten the hitherto grave prognosis cases of albuminuria. Large quantities of lbumen were found in the urine of a middle ged man; the urine was lithiacal and without other confirmatory signs of organic disase, a most gloomy prospect was depicted y the consultant, winding up with the preiction that the patient would not live three nonths. By advice he left off drinking beer, hich he had been using freely, and almost nmediately both the albumen and the lithcal condition became less, and recovery was pid.

In another case, that of a man who in early life had been a great athlete, unfavorable prognosis was made, but the patient refused to be guided by the prognosis and is still living, though infirm from prostatic and cystitic troubles.

Other cases presented in discussion indicated a general belief that the gravity of cases in which albuminuria was the prevailing symptom was overrated.

Beef Tea Defended.

Dr. W. R. D. Blackwood, in the *Phila. Med. Bul.*, in the course of an ably presented treatise on "beef extracts" makes some points that are at least consoling to those old fogies (?) who still maintain that beef teas are nutritive and strength sustaining.

Rather sarcastically, he says: "When a fever case dies, we hear that had nourishment —real nourishment—been given, the case would have recovered, but that as beef tea was largely relied on, of course the person starved. Here we find that beef tea is like jelly—a snare and a delusion! How curious it is that in our grandmother's days so many fever cases lived long enough to get better on jelly and beef tea, and stood long sieges at that; but now, we cannot get along without radical changes in diet. We don't at present have to stand the drain of repeated venesection either, and one explanation of the paradox may be that our progenitors bled out the "salts" only of the body, which were replaced by the tenuous beef tea and equally innutritious gelatine. After giving the late statements that beef tea is largely composed of "salts" the writer proceeds to enjoy himself at the expense of the chemists of the day who have so decided, and winds up by taking the part most valiantly of beef tea and especially of the beef extracts.

In this connection it may not be out of place to give the mode of preparation of a most excellent beef tea, as beef teas go. Take of the lean round pieces about an inch thick, twice as long and about as wide; season with pepper and salt to taste, and broil

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over glowing coals until thoroughly hot through; squeeze in a lemon squeezer, and again season if need be. This preparation will congeal upon cooling, and besides being most palatable, who will say that it is not nutritious?

Carbuncles and Boils.—Treatment.

"Treatment of Carbuncles and Boils," is the the title of a most interesting paper from the pen of Sir Peter Eade, F.R.C.P., in the *Brit. Med. Jour.* of May 19.

The writer of the article takes it for granted that there will be no dissension from the position taken by Mr. Page, and Rushton Parker in their papers upon the same subject of recent date, but the fact of the two last named having devoted their attention to the treatment of the diseases in their late stages, he thinks, makes discussion of their early stages opportune. There can be no doubt of the propriety of removing the carbuncle or boil by either the knife or spoon, or by caustics in the later stage, as suggested by the previous writers, so the question of treatment confines itself to the initiatory stages of the lesions.

He has been able to find no reason for changing the opinion, expressed by him more than ten years ago, that the two diseases are local rather than constitutional—in fact the discovery and isolation of a parasite or micrococcus has been already effected; and this fact will place the theory of constitutionality upon untenable ground. He thinks that with this knowledge of the etiology and pathology, discussion of the direction of treatment will be uncalled for, and by this process of exclusion, he *boils* his paper down to local treatment: "boils and carbuncles are not identical," he says, "for they have a different size and aspect, a different life history, and an entirely different duration; but they are evidently closely akin, alike local, and 'fungoid,' and the theory of their treatment must be the same, however modified in practice by the lesser importance of the one."

At first the pimple, either in the case of carbuncle, anthrax or malignant boils generally, may undoubtedly be destroyed by continuous soaking with a solution of boracic acid, salicyli acid, or other mild antiseptics; at a little later stage, the growth may be aborted by inserting freely into its central or cribriform openings, a strong solution of carbolic acid in water or glycerine. But when it has become large and solid, and much surrounding tissue has been infiltrated by the growing germs and their products, the disease appears to be chiefly susceptible of surgical treatment by partial or entire excision, or incision with scraping away of the "boggy" material, as recommended by Mr. Page.

Sir Peter cites two cases in substantiation of his early interference with the carbuncle, a physician became a victim, and under the ordinary poultice treatment was made an invalid for months; the result was much cicatricial tissue, which upon contraction, left his face (the site of the attack) distorted and disfigured for life. The other case, had already reached a high state of development; the upper lip was swollen, tense, and very painful, while small openings had already been formed. A strong solution of carbolic glycerine was injected into every part where there was an opening; the process was painful and disagreeable, but was persevered in with the result that in four or five days the progress of the disintegration had been checked, and in two or three weeks the patient was well and wholly free from deformity.

It may be said that the recognition of the character of the growth in these cases is the key to their treatment, and without doubt, the dangers attendant upon such attacks have been materially lessened by the writer of the paper under discussion, and by his English brothers, Page and Parker, but candor demands that credit should be given first of all to Mr. Watson Cheyne, (and Sir Peter does not withhold that credit) who demonstrated under the microscope, the local nature of the disease, and its parasitic character.

A New Hypnotic.

The rule governing the administration of

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ost "home remedies," that if they will do
good they will do no harm will, in the
ajority of cases, "work both ways," that
to say an agent that is potent for good is
o potent for harm. No exception has been
und to this rule in the search for a sleep-
oducing drug. We have a number of ex-
llent soporifics, but none that is entirely
e from danger, or that will meet the indi-
tions in every case.

Dr. Edmond Charles Wendt hastens to
ll the attention of the profession (*Med.*
c.) to sulfonal, a drug of which Professor
st, of Freiberg, says it is a hypnotic, pure
d simple.

Dr. Wendt states that from the experi-
nts on animals, and clinical observations
man, the action of the new drug appears
consist merely in the intensification of
se factors which lead to natural sleep in
physiological sense or in supplying the
riodical desire for sleep where it is want-
g. The negative qualities claimed for it
that it does not disturb digestion, it is
t constipating, it has no unpleasant after
ects, it does not invite the formation of a
bit, and it does not lose its efficacy even
en used for a long period of time. Alto-
ther, it is supposed to be perfectly harm-
ss.

An agent with such an array of valuable
gative qualities will be a boon to the hu-
n family if it proves to be a reliable hyp-
tic.

The signal success attained in the use of
comparatively new drug, cocaine, as a lo-
anesthetic, ensures that this new agent,
ich is highly recommended by our German
thren, will be given a fair and impartial
al.

Its chemical name is "diaethysulfondi-
thylmethen." It occurs in the form of
ge, flat, colorless crystals which are taste-
s and colorless. Soluble in twenty parts of
iling water and in about one part to one
ndred in tepid water.

The dose is from ten to sixty grains, fifteen
ins being an average dose to begin with.
is best given in water or in wafers or cap-
les.

It is especially recommended in the treat-
ment of mental disorders. Dr. Rabbas, of
the Marburg Lunatic Asylum, has used it
over two hundred times with uniformly good
results. He emphasizes its harmlessness.
But Dr. Wendt intimates that Prof. Kast had
succeeded in poisoning dogs by its use.

The drug has not yet been placed on the
market in this country.

Section of the Second Division of the Trigeminus.

The removal of portions of nerves which
are the seat of intense pain has long been
practised, with varying success. Dr. Garret-
son (*Med. Times*) has made a section at the
foramen rotundum of the second division of
the fifth cranial nerve in five cases since Sep-
tember last.

Dr. Garretson stated that he had never lost
a case from the operation, and that no worse
results had ever followed than an occasional
secondary hemorrhage or an attack of erysi-
pelas. During the greater part of the opera-
tion the instruments are guided exclusively
by the sense of touch, which he thinks quite
as reliable as that of sight.

Experts say that in using the dental bur for
the removal of carious bone in cavities—the
frontal sinus, for instance—they are able to
determine the line between the diseased and
healthy bone, even to the one hundredth of
an inch. Some say this educated touch is
readily acquired.

Ulcer of the Stomach.

Dr. Wm. F. Waugh (*Phil. Med. Times*)
says that gastric ulcer is a disease character-
ized by three pains and two other symptoms.
These are a constant localized gastric pain, a
much more severe pain on taking food, and a
sharp radiating pain running into the back
and darting upward to the left shoulder.
The two other symptoms are vomiting of
blood, and constipation with anorexia and
poor digestion.

His treatment is, first, to cause an evacua-

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tion of the patient's bowels by giving a laxative pill containing one-half grain of aloes once or twice a day, then the patient is put on the use of a hot, alkaline, chalybeate water, such as the Pavilion or Excelsior Saratoga, one hour before meals, and a pill containing two grains of oxide of zinc and one quarter of a grain of oxide of silver, three times a day just before meals.

The case reported by Dr. Waugh is a typical one of gastric ulcer. In many cases the symptoms are not so marked. In a case that came under our observation, a house-maid had been treated for a week by a physician whose diagnosis was "cold of the diaphragm." Tablespoonful doses of medicine had been given three times a day and as often rejected by the patient's stomach, as was everything else which she swallowed. Pain came on immediately after taking food and lasted for some time after the stomach had emptied itself. Pressure over the abdomen gave no uneasiness except at a circumscribed spot over the pyloric end of the stomach, and at this point it gave rise to great pain, which was felt in the region of the scapula. At no time had there been any vomiting of blood. Pain was not constant, though certain positions of the patient's body would elicit it.

The case was diagnosed, superficial ulcer of the stomach. The patient was instructed to take nothing into her stomach for five days, not even water, and at the end of that time milk was given, beginning with a tablespoonful every two hours and increasing the quantity gradually. At the end of a week no symptoms of disease were present.

The Hygienic Relations of Milk.

Adulterations of milk that supplies the markets of the great cities has for many years been the subject of much investigation, and no little legislation. It has only been within a few years past that special attention has been called to milk as a medium of transmission of disease.

Dr. Charles W. Drew, of Minnesota, gives (*Northwestern Lancet*) the result of his analyses of more than two hundred samples of the milk obtained from the dairies of his state.

He found that excessive watering was not very common, but the sale of milk from which a portion of the cream had been removed was very common indeed. Other forms of adulteration were coloring matter and preservative agents. The energetic administration of the Dairy Law seems to be improving the quality of the milk.

Dr. Drew referred to Dr. Vachers classification of the methods by which disease may be transmitted from cows to persons who drink the milk. The classification is as follows:

First. It may be derived from a cow suffering from a specific epizoötic disease.

Second. It may be derived from a tuberculous cow.

Third. It may be drawn from an inflamed udder.

Fourth. It may have become altered from chemical or fermentative changes.

Fifth. It may have become infected with the contagium of an animal disease.

Sixth. It may have become infected with the contagium of a human disease.

It is a well known fact that certain diseases may be transmitted from a mother or wet-nurse to a nursing infant through the milk, and it is reasonable to suppose that certain diseases may be transmitted through cow's milk as well. Fortunately the number of diseases is small to which both cows and human beings are subject.

Much has been done in improving the sanitation of dairies; but that there is much yet to be accomplished is plainly shown by the fact that in the best hotels, it is not uncommon to find quite a sediment in the bottom of glasses from which milk has been drunk. We are inclined to believe that it would be a difficult matter to convince some dairymen that pure milk has no dirt in it. Now we do not believe that it is necessary to adopt antiseptic principles in this branch of industry, but we do hold that for the sake of decency, to say nothing of the prevention of

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isease, the milkman's hands and the udders id teats of the cows should be thoroughly eansed before each milking; and every ther source of the introduction of filth into e milk precluded. If this be done the conits of pustules and discharges from ulcers ill not be so likely to containinate the milk, the diseased condition of the cow will not overlooked.

A Contribution to Hepatic Surgery.

Dr. L. McLane Tiffany, in the June numr of *Amer. Jour. of Med. Sci.*, gives in deil two operations, in each of which he made incision through the abdominal wall exsing the upper surface of the liver; then ith a fine needle and silk thread he sewed, a close continuous suture, the peritoneal lges of the incision to the surface of the ver. By this means he secured an extraritoneal spot through which in one case he eely opened and thoroughly irrigated an scess cavity in the liver substance. The tient recovered.

The second case is a more interesting one. he diagnosis was impacted calculi in the ll-bladder, when an incision was made into e abdominal cavity, it was the intention of e operator to drain the gall-bladder exterlly in the usual way, but he found the instines bound by adhesions to the under rface of the liver and the gall-bladder, and did not think it possible to make a successful operation by breaking up the adhesions. He decided to attempt to accomplish s purpose by making a drain through the bstance of the liver. He passed a hollow edle through that organ into the gall-bladr and drew off some clear fluid. He then ited the peritoneal edges of the abdominal cision to the surface of the liver by means a continuous suture as in the previous se. This closed the peritoneal cavity, leavg an extraperitoneal spot of liver through ich he made an incision large enough to mit his finger. A gush of blood followed e removal of the knife. He plugged the ening with his finger for three minutes, after which no hemorrhage followed its withdrawal. He removed, with forceps, thirteen calculi, which left a free passage of bile into the bladder. A rubber drainage-tube was inserted. The patient recovered.

Dr. Tiffany says that these cases seem cleary to indicate that liver hemorrhage is amenable to pressure applied directly upon the bleeding surface.

The method adopted, that of closing the peritoneal cavity, leaving a portion of the surface of the liver exposed, is an important one, as it obviates the necessity for waiting till inflammatory adhesions can be produced, before opening the abscess of the liver. There is always some danger of an extension of the local peritonitis. The adhesions cannot so certainly be relied upon. Time in many cases is an important factor.

So easily and so rapidly can a portion of the liver be made extraperitoneal that Dr. Tiffany thinks it may prove of service in diagnostic explorations. Its value is very great, in treating wounds of the upper surface of the liver.

The occasions are certainly rare in which the gall-bladder can be better reached through the liver substance than otherwise. but the success in this case proves it to be one method of saving life.

Ovariotomy in Patients of Advanced Age.

It seems that age is no longer to be considered one of the chief factors in determining, whether or not ovarian tumors shall be removed from the abdominal cavity. Dr. John Homans reports (*Bost. Med. and Surg Jour.*) a case in which he successfully removed a multilocular and somewhat papillomatous tumor of the left ovary of a woman eighty-two years and four months of age. At the request of Dr. Homans, Dr. R. Lorini, of Washington, has made a special investigation of the literature on this subject, and the most advanged age at which any patient of the recorded cases had reached was one in Russia, seventy-eight years.

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Dr. Homans had previously operated successfully on two patients at the age of seventy-three. They are still living and in good health. In his report he refers to a number of cases above seventy. In one case Dr. Owens, of Australia, successfully operated on a patient seventy-nine years and ten months of age.

Snake Poison and its Antidote.

Dr. H. C. Yarrow, one of the curators of the National Museum, reports in the *Forest and Stream* the result of his experiments with the poison of rattlesnakes and its antitodes. Permanganate of potash completely neutralized the poison when brought in direct contact with it. He found however, that the diffusion of the venom when injected into the tissues of the animals, was so rapid, that though the hypodermic needle was left *in situ*, the barrel of the syringe quickly filled with the permanganate solution and emptied through the needle at the same point that the venom had been placed, the animals died. When a ligature was placed above the injection the permanganate was found to have the decided antagonistic effect to the venom.

CORRESPONDENCE.

NEW YORK LETTER.

New York, June 1, '88.

Editor Review.—A recent letter chronicled the death of Dr. Wesley M. Carpenter, whose demise created a gap not easily filled. His great interest in the advancement of medical science is strikingly attested by his will, a codicil of which has recently been made public. It reads, "After the payment of my funeral charges, and the expense of administering my estate, I give and bequeath five thousand dollars to the New York Academy of Medicine, with which to found a lectureship, to be known as the Carpenter Lectureship, to be paid to the trustees of the New York Academy of Medicine, to expend the interest thereon annually for one medical lectureship." The trustees have accepted the gift on these conditions.

The quarantine question has at last been settled. About a quarter of a million dollars has been appropriated by the legislature to place the establishment in a thoroughly efficient condition. The salary of the Health Officer has been definitely placed at ten thousand dollars, and he is required to turn all fees into the state treasury. The governor has appointed two new quarantine commissioners, who, though they are known only as politicians, are going about their new duties with commendable zeal. Thus ends, satisfactory let us hope, a much discussed question.

Bearing also on the city's health, is the question of contamination of our Croton water supply. Dr. John C. Peters has recently reported to the County Medical Society, his investigations on the matter. He finds that the sewage from all the towns and villages on the Croton river and its tributaries drains into our drinking water. This sewage represents the excreta from over 20,000 persons, 12,000 cows, 15,000 pigs, 40 factories and mills, 12,000 horses, 5 cemeteries, 5 slaughter-houses, and barn-yards without number. The society has taken the necessary steps to bring the matter before the legislature, and to secure the requisite authority to keep the water shed from contamination.

The Woman's Medical College has recently graduated a class of four. This small number is accounted for especially from the high standard of scholarship of the institution. In this respect it far surpasses any of our men's medical colleges here. A proposal was made to change the name to the Blackwell College in honor of its dean Dr. Emily Blackwell.

Dr. John S. Hawley has recently performed at the New York Cancer Hospital two laparotomies for extra-uterine pregnancy, In both cases the diagnosis was made before operating, and both have recovered. Dr. Hawley thinks that many of the so-called cases of pelvic hematocele which result fatally are really ruptured fruit-sacs. He objects to electricity

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n the ground that while it may kill the fe-
is, it does not always arrest the growth of
ie structures enveloping it. Hence, there
the same danger of rupture even with a
ead fetus.

At the last meeting of the Pathological
ociety, Dr. Francis Delafield gave a demon-
ration with a lantern, of the lesions of acute
right's disease in its three varieties, exuda-
ve, parenchymatous and diffuse. It was an
lustration of the views advanced by him at
ie last meeting of the New York State Med-
al Society, and was most instructive for all
resent.

Dr. B. F. Westbrook recently read before
ie Academy, a paper on "Pleurisy as a Pre-
isposing Caurse of Phthisis." He divi-
ed the cases of pleurisy preceeding pulmo-
ary disease into five classes as follows:

1. Pleurisy with effusion immediately fol-
wed by pulmonary tuberculosis, and rapidly
roving fatal. Here the pleurisy is undoubt-
lly tubercular in origin, and is a part of the
neral disease.

2. Sero-fibrinous pleurisy followed by
owly developing chronic interstitial pneu-
onia, (Sir Andrew Clark's "fibroid
hthisis.")

3. Sero-fibrinous pleurisy (acute or suba-
ute) terminating in complete recovery, but
llowed after a few months by tubercular
posits at one or both apices.

4. Sero-fibrinous pleurisy becoming chronic,
here from the density of the fibrinous exu-
ate over the pulmonary surface, and the les-
ned elasticity of the chest walls, absorption
oes not occur. These occur after middle
e. They are often followed by apical de-
osits or disseminated tubercle.

5. Empyema preceeding a tubercular change.
is conclusions in regard to the bearing of
euritic attacks on future health were these;
o case of pleurisy should be neglected. The
sappearance of all signs of effusion should
ot of itself lead us to pronounce the patient
ell, and allow him to resume his former oc-
upation. He should be kept under observa-
on for one year, and examined at intervals.
specially should all this hold good where
there was a family history of phthisis. Much
can be done by lung gymnastics, by the inha-
lation of compressed air and the use of the
pneumatic cabinet. In middle life the chest
walls have lost some of their resileincy, as
have also the costal cartilages. No effusion
should be allowed to remain over two or three
weeks. Aspirate, and if the chest fills, aspi-
rate again. Look out for complications as
long as there is dulness and feeble lung ac-
tion. Rely on tonics, liberal diet and much
exercise in the open air.

The French Hospital has outgrown its pres-
ent crowed quarters, and will shortly move to
more commodious buildings. The institution
is mangaged entirely by the French residents
of this city and does a most commendable
work. Two houses have been taken and will
furnish at least forty-five separate rooms.
The hospital itself is but one of the many
charities of the French Society of Benevo-
lence. J. E. N.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday Evening, May 19, 1888. The president, Young H. Bond, M.D., in the chair, J. B. Prichard, M. D., Secretary.

Dr. F. J. Lutz.—I attended the meeting of the American Medical Association last week, and I found it very profitable, especially for surgeons, and more particularly for the reason that the subject of abdominal surgery in connection with penetrating wounds, received one of the most valuable additions that could possibly be made, through a discovery, or an invention, on the part of Dr. Senn, of Milwaukee. Dr. Senn, as you know, has already done very much in the way of bringing abdominal surgery, especially accident surgery of the peritoneal cavity, to the attention of the profession.

His recent and most valuable addition is a sure method or means of demonstrating the existence of intestinal perforation hy the introduction through the intestinal tract of hy drogen gas. You know that hydrogen gas is

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an innocuous gas, and that it is ignitable. It can be introduced into the peritoneal cavity and will there be absorbed or eliminated afterward through the rectum without any injury to the system at large, and the fact of its being ignitable is made use of to demonstrate its presence in the peritoneal cavity through the opening made into the abdomen; in other words, the hydrogen gas is passed into the intestinal tract, it passes through the opening in the bowel and into the peritoneal cavity and escapes through the wound in the abdomen; it is there ignited, and the fact of its escape into the peritoneal cavity demonstrates beyond peradventure the existence of the opening in some hollow viscera of the abdomen.

The method by which the gas is obtained is quite simple; this large bottle contains chemically pure zinc, to which is added dilute sulphuric acid, the result of the chemical action is the liberation of hydrogen gas, which is passed through distilled water for the purpose of removing any foreign ingredients, and then it is passed through the wash bottle into a rubber reservoir, this one holding four gallons. This reservoir can be filled in about fifteen minutes. You see the gas is bubbling up through the water here. When the boiling in the large bottle decreases we simply add a little dilute sulphuric acid to keep up the generation of the gas. If the gas is required to be used often it could be kept in one of these reservoirs.

From this bag, the gas is passed into the rectum of the animal, through the ileo-cecal valve without very much difficulty, really without any difficulty, and its passage entirely through the alimentary tract will be demonstrated by burning the hydrogen gas as it escapes at the end of the stomach tube which is introduced into the stomach. Of course practically that is of no importance except that it demonstrates that it has passed through the alimentary canal. The presence of fecal matter in the intestinal canal is no obstacle to the penetration of the gas; it distends the bowels without difficulty.

Another thing is demonstrated by the passing of the gas through the intestinal tract. In performing a surgical operation, in a case where numerous penetrating wounds exist, that portion of the bowel, above the ileo cecal junction which is perforated is collapsed, and the gas will escape through the first opening. After closing this opening the gas will continue to the next perforation, and in this way all the perforations can be discovered. The apparatus will be a necessary part of the armamentarium of the surgeon, and we thought it of sufficient interest to repeat the experiment here.

During the past winter numerous discussions have occurred in the society on the subject of gunshot and stab wounds of the abdomen, and I myself have taken the privilege of presenting to the society several pathological specimens illustrating wounds of the intestine, and the question has always been asked here "What is the warrant for opening the peritoneal cavity?" "You can not be sure," it was urged, "that the penetrating wound of the abdomen extends into the intestine, so that in performing laparotomy you may be simply adding additional injury. You do not know for certain; you have no diagnostic means by which you can demonstrate satisfactorily the existence of an intestinal perforation." It is true we held that sudden distention of the abdomen and the presence of hepatic dulness, etc., were sufficient warrants for us to assume that the intestinal tract had been perforated. But the argument is always urged, "perhaps it does not on post-mortem." I have made a number of post-mortems in gunshot and stab wounds of the abdomen, and have found that the intestines or some hollow viscus was wounded, yet in any given case we can not know this to an absolute certainty beforehand. Now this is done away with. We have now an absolute test by which we can demonstrate the perforation, thanks to the discovery of Dr. Senn.

Dr. A. H. Meisenbach.—Dr. Senn has a world-wide reputation, and I believe if he had not done or said another thing than demonstrate this fact, and given us this test

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for determining whether there exists a perforation of the intestine in cases of penetrating wounds of the abdomen, his name would have become famous. Heretofore the diagnosis of intestinal perforation has been unsatisfactory, and the question always arose as to whether the surgeon was justified in opening the abdomen and performing laparotomy or not.

The conception of Dr. Senn was a brilliant one. He made a great many experiments in order to prove certain facts. The first thing was to find an innocuous agent, an agent which could be used without detriment to the tissue, and which would do no damage to the patient to whom it was given. He found such an agent in hydrogen gas. This he demonstrated by filling the peritoneal cavity of an animal with hydrogen gas. In from twenty-four to forty-eight hours the entire amount of gas was absorbed without detriment to the animal. He then applied the same test to the pleural cavity, injecting the gas and forming a pneumothorax, and found that the gas did no damage. He found that very little force was necessary to overcome the resistance of the ileo-cecal valve. The degree of force necessary was found by means of a mercury gauge, to vary from a third to two and a half pounds.

Drs. Lutz and Meisenbach then demonstrated the possibility of forcing the hydrogen gas through the intestinal canal of a dog by passing it into the rectum and igniting the gas as it escaped from the stomach through a stomach tube. They also made a gunshot wound in the dog's abdomen, forced the gas into the bowel through the rectum, and ignited it at the site of the wound.

Dr. Young H. Bond.—I would like to ask the doctor how these experiments were received in Cincinnati?

Dr. Lutz.—It is needless to say that those interested in surgery were very enthusiastic over it, and I am sure it is being tried all over the country.

This would be very valuable in such a case as I reported on last Saturday or the Saturday preceding, and in which I presented a specimen where a wound half an inch in length was made in the anterior wall of the abdomen, and the intestine cut in three different places.

Another point in connection with the subject is the medico-legal aspect. For instance in treating a patient with a wound of the abdomen, if, on the presumption that the intestines have been perforated, laparotomy is performed and no wound of the intestines is found and the patient dies, on the trial of the person inflicting the wound, it may be urged that the laparotomy added to the injury and perhaps insured the death of the wounded person or was a factor in determining the fatal issue. Now whilst we have practically found that in the majority of penetrating wounds of the abdomen, the intestines are wounded, we know there are cases in which this does not occur, and we have here a test by which we can determine positively whether they are or not.

Dr. A. Green.—In connection with this valuable discovery we have to consider first wherein consists the danger of an abdominal wound? Is it merely because the peritoneum has been wounded, or is the danger rather from septic infection? Without septic infection there is no peritonitis.

The life of the patient in a case of injury to the abdomen of this character, especially where the intestineal canal is penetrated, depends upon the shortness of time which elapses between the injury and the performance of the laparotomy. Now we can not expect that every physician will have such an apparatus as this ready when the injury occurs; if he has to go two or three miles for it we lose valuable time; before it is obtained infection may have taken place; of course infection implies incubation, and the longer time there is allowed for incubation to occur, the less effective will be the laparotomy.

Again in gunshot wounds, no matter whether the intestines are penetrated or not, if we fail to perform laparotomy the patient will probably die. We ought to perform laparotomy in every case of wound of the abdomen. The test is applicable, as Dr. Lutz has remarked, in a medico-legal aspect, there

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it is of great importance; but again there comes a stumbling block, for if the test does not show a perforation of the intestinal tract there still may be one. We saw that the hydrogen gas would not make itself known even through the stomach.

DR. LUTZ.—Yes it did, doctor.

DR. GREEN.—Suppose doctor there is a blocking of the intestine by scybala, will the hydrogen gas pass through?

DR. LUTZ.—Yes, sir.

DR. GREEN.—If your patient dies, the lawyer will say, if you had performed laparotomy, the patient would probably have lived.

DR. WM. JOHNSTON.—Dr. Senn certainly deserves the gratitude of the surgical profession of the civilized world. There is no one who has practised medicine long, who has not been called upon to treat gunshot wounds of the abdomen. There is one point that I have not heard Dr. Lutz explain: A man is shot through the intestines, large or small, perhaps in two or three places, when the surgeon takes the bowel out, how does he treat the gunshot wound of the bowel? As far as my reading on surgery is concerned it is deficient here. Would he immediately cut out the torn portion of the intestine, make it smooth at the edge, fasten it together, and have it heal by first intention? I recollect in 1845, a gentleman was shot in the right side, near the spinal column, a little to the right and above the kidney. Two bullets went through. One we cut out an inch or two below the navel. We kept the man under the influence of opium so that he breathed only eight or ten times, a minute, and we believe he was cured by nature throwing out plastic matter and forming adhesions and thus preventing the escape of the fluid in the intestines. The patient recovered.

DR. LUTZ.—I am afraid that in answering the question that Dr. Johnston has propounded, I will be repeating what all the gentlemen who practice surgery know to be the accepted practice in cases of that kind. However, in order to answer the question which of course was put in good faith, I will make a rough drawing. This will represent a section of the intestine, and this the mesentery. We will suppose that there is an incised wound of the intestine, there being but a single wound situated transversely to its long axis. The mucous membrane will be everted and apparently closing the opening. Those gentlemen who observed closely when I exhibited the gunshot wound in the dog saw that the same condition of affairs existed there—the mucous membrane was everted. Now upon that anatomical fact surgeons formerly based the supposition that if the wound was not large a proper plug would be formed over the intestinal opening which would prevent the escape of the intestinal contents into the cavity of the peritoneum and by this means many cases of incised wounds were healed by nature.

If such a simple incised wound is found in the intestinal wall the surgical practice is to close it up by approximating one serous surface to the other; that being the most rapid, and perhaps as elegant a surgical procedure as any of the other suggestions and practice, some of which consist in first uniting by means of the continuous suture the mucous coat of the intestine. An ordinary practice is to introduce the Lambert suture, or the modification of that suture, and the object of which is to approximate one serous surface to the other and thus keep them in close apposition with each other; which is followed by an exudation of plastic material which occludes the wound. Now the suture is simply introduced and passed through to the other side, embracing the serous and muscular coats, or only the serous coat; another suture is similarly introduced on the other side, and by drawing these sutures together you approximate more accurately the serous surfaces.

Practically, however, I have found in suturing wounds of the intestine, that the continued suture, made on the same principle including the serous and muscular coats of the intestine, is made most rapidly, and answers the purpose as well as the interrupted. The size of the wound determines, to a great

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xtent, the procedure. If in a gunshot wound portion of the intestinal tract is torn out, nd it is found that by an effort to unite the orn surfaces three-fifths of the calibre f the canal would be thereby destroyed, it considered that the wiser practice would e not to unite them by means of the continous or interrupted suture in situ, because ie calibre of the canal would be so small as requently to produce a stenosis. When a rge portion of the intestinal tract has been orn out, or if a large number of small perfoations exist in close proximity one to the ther, for two reasons the suturing of these penings would not be advisable; the one ould be the stenosis resulting from the unon and the other the great length of time would require to suture the individual penings. In a case of that kind, just as we ould do in a case of strangulation of the owel in hernia, an excision of a portion of ie bowel is more rapidly done and is just as afe. We excise a portion of the intestine, ake out a "V" shaped portion of the mesenry; which you know consists of re-duplicaons of the peritoneum with,in some instanes, fat. Where a section of the bowel is perormed in this manner, I have been in the habit f uniting it first on one side; taking the upper surface first, beginning at the mesenteric ortion of the triangle and uniting that until ou get down to the intestine, then suturing iat around and afterward uniting in the same anner the opposite side, doing it with one ontinuous suture.

Another interesting point which was stated y Dr. Seen at the meeting at Cincinnati, was ie fact that in from twelve to twenty-four ours a sufficient amount of exuded material thrown out around the wound to practically eclude it. I have now at home a dog which have laparotomized day before yesterday. I ade an opening in the intestine, to demonrate the escape of gas from it, and afterard I simply pulled out a portion and tied by means of a catgut ligature. That you ow is one of the older methods. I expect find around this suture and around the ound enough plastic lymph to thoroughly occlude it. The dog has not had high temperature; he is walking about and eats.

I will say furthermore that injuries of the intestine and abdomen are united in the same was as we unite the parts in ovariotomy. An effort is made, in uniting the abdominal wound, to approximate one serous surface to the other, and really I believe I have had the best results where I united it layer for layer. In a number of instances I operated at the city hospital carrying out this principle. In other words I first united the peritoneal coat by means of the continuous suture; then over that the muscular coat and the fascia, and finally the cutaneous layer and the integument. I believe that is the safer practice, for this reason that abdominal tumors usually distend the cavity of the abdomen considerably, and there is no difficulty at all in properly approximating the two peritoneal surfaces. After removing a large tumor you seem to have a redundancy of tissue; there is no tension on the stitches: on the other hand in performing laparotomy for an incised wound, or for a gunshot wound in a male, or a female who has not borne children, you will have a tension which is very great; it is sometimes very difficult to properly approximate the edges of the parts, and in those cases I have always found the most satisfactory way to approximate the surfaces properly and prevent the tension from tearing through, and subsequently producing ulceration, sloughing at the site of the stitches, was to take each layer of the intestinal wall separately and unite it. It makes a safer suture than the other.

DR. JOHNSTON.—Suppose the colon was injured—the ascending and descending colon, would you cut a piece out? Suppose it was perforated by a gunshot wound?

DR. LUTZ.—The doctor's question is different from what I understood it. Of course if I found the edges of the colon ragged and in a condition such that I thought a portion of it would die, I would resect it and make the edges smooth, just as I would in any other wound, but it is not so likely that the colon would be thus torn, as it is a thicker coated organ than the small intestine.

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Dr. Meisenbach.—I don't know that I have anything to add. Dr. Laidley asks me whether any other form of gas can be used except hydrogen. We can use almost any kind of gas, but most of them are injurious, and as I have stated Dr. Senn made experiments and determined that hydrogen gas was perfectly innocuous.

Dr. Borck.—Has Dr. Senn or anyone else used this test on the human subject?

Dr. Meisenbach.—Dr. Senn made some experiments on a human subject to determine the amount of resistance, but in that case it was not a good test, as there had been some disease of the intestines which softened them.

Dr. Hulbert.—I move that the thanks of the society be extended to Drs. Lutz and Meisenbach for their very interesting demonstrations this evening.

Dr. Broome.—I would offer as a substitute, that the thanks of this society be tendered to Dr. Senn for his valuable discovery and to Drs. Lutz and Meisenbach for their demonstration of the same this evening.

The motion was carried.

SELECTIONS.

ETIOLOGY OF PUERPERAL FEVER.

BY JAMES P. MARSH, M. D., GREEN ISLAND, N.Y.

Question first: "What evidence can be adduced to show that the puerperal fevers are caused, either directly or indirectly, by micro-organisms?"

In arising to reply to this question, I feel it incumbent upon me to turn my attention to the term puerperal fevers. Professor Parvin defines puerperal fever as "an acute febrile affection, heterogenetic, contagious, and often epidemic, attacking women in childbed." I am well aware that it is not politic for a disputant to preface his remarks with a string of objections, but, nevertheless, I feel constrained to take exceptions to the term puerperal fever, and also to this definition of the condition commonly known as "puerperal fever." These objections are based upon the ground that the pyrexia of the disease is only a symptom of secondary importance, and, as pathologists are very well agreed that in inflammatory affections the initial lesion is a lymphangeitis, it is therefore suggested that the condition might properly be called a stetric lymphangeitis; but to declare it "heterogenetic" is to affirm that which is by no means conceded to have been proved. I submit that a definition must convey to an enquirer that which is understood by the majority of competent persons when the said term is used. Hence by puerperal fever we shall understand a lymphangeitis contagious, often epidemic, which attacks women in childbed.

Returning to the proposed question, it is to be observed that it has been framed in a peculiar manner, and that the use of the plural number carries with it the direct admission of there being more than one puerperal fever. Should any of my hearers, therefore, take the ground that there is a puerperal fever *sui generis*, then also must they admit that the lying-in woman is subject to all the grades and forms of pyemia and septicemia.

Having thus performed the duty imposed upon every discusser of first accurately defining his subject, we find that the enquiry as regards the cause or causes of this disease must embrace, at least, three several factors:

1. As regards the manner in which the state of pregnancy might influence the condition of the maternal organism in those respects which may relate to either its receptivity or refractoriness toward micro-organisms.

2. As regards the natural history of micro-organisms, so far as the lying-in woman would furnish a suitable nidus for their birth, growth and decay.

3. As regards the favorable or the unfavorable environment of both the woman and the micro-organisms.

Now, it is proposed to briefly set down under each one of these divisions the well known and established facts which may relate to that part of the subject, but before I proceed so to do, let me detain you for a mo-

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ient by a consideration of the broad rules of vidence according to which the inquiry iust be conducted.

If evidence of the unfailing presence of iicro-organisms of a certain definite morhological character in the lochia or tissues f patients suffering from puerperal fever can e adduced, and furthermore, that said organims are found in no other disease, or on the ther hand, in cognate diseases, it is is still iaintained that it is not proved that these iicro-organisms are the direct or only cause f said "fever." It is self-evident that they iust be either complete or partial cause—omplete or partial effect, which relation may e in either case direct or indirect. To esiblish sufficient proof, it must be incontestaly shown that these organisms alone, and 'ithout the chemical products of their existnce in a previous environment, will origiate "puerperal fever" in a patient who has othing in her previous or present condition, ther than being in childbed, which would ender her either susceptible or refractory to iid micro-organisms. Supposing that this an be demonstrated, then, in addition, to ender the proof conclusive, it must be estabshed that the condition known as puerperal ever never arises without the presence of iese organisms. If proof of the foregoing ropositions be found, it is still necessary to eclare by facts whether these organisms are ie direct poisoners or that the products of ieir existence—the debris—are the real proucers of the disease.

So difficult is it to eliminate all sources of rror in investigations as to the etiology of uerperal fever that it is not surprising that f the many theories which have been proosed, few have advanced much further than ie stage of a hypothesis. The mind of man of an inquiring tendency, but his investiations into the causes of things have in the ast been very discouraging; he has usually olved one problem by leaving two conunrums in place of it. This has been pre-eminently true of the etiology of puerperal fever, id there is but one way through the labynth of its vast literature. Place on your right hand all the known facts, on your left all the proposed theories; walk boldly midway between the two—never confounding the one with the other—and you may, after many hours of hard toil, arrive at the faint glimmering twilight of the conception of the ultimate cause, but the clear sunshine of the exact relation of cause and effect has never been, nor ever can be a concept of the human mind. Hence I am led to say, with Sir. Wm. Aitken, that, after centuries of toil and study, the final cause or causes of any disease are still absolutely unknown. Having then told you that it is impossible to solve the riddle that we have in hand, and yet inconsistently following hope, the one great chimera of mankind, we proceed to those facts which may be said to have been definitely settled.

I think it well established that during pregnancy there occurs a marked diminution of the red blood corpuscles; that the function of these corpuscles is mainly that of carriers of oxygen; that the vitality of the individual cells composing the body is seriously impaired, if they do not receive a sufficient supply of oxygen; that there is during pregnancy an increase in the watery constituents of the blood, and that, as a consequence of this hydremia and by reason of the pressure of the gravid uterus upon the abdominal veins, there is often induced an edema which by preference manifests itself in the lower extremities, and frequently extends to the labia, vagina, and the lower segment of the uterus; and that where an edema arises from mechanical pressure there also ensues a retardation in the rapidity of the blood-current, and an increase in the blood pressure.

In the lochia of nearly every healthy woman there exist micro-organisms of different varieties. Pasteur has divided micro-organisms into two classes. The first consists of those whose existence is jeopardized in an environment deprived of free oxygen; the second contains those whose existence is jeopardized in an environment where there is present free oxygen. The first class he calls *aerobies*—oxygen-living; the second, *aanerobies*—non-oxygen-living. Both of these classes are rep-

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resented in the micro-organisms found in the discharges and tissues of healthy and unhealthy puerperal women. The prevailing organism, however, both in the healthy and the unhealthy, is a micrococcus, which is very abundant in women who are passing through or are about to enter upon the state of puerperal fever. These micrococci belong to the vegetable kingdom, and, as regards their structure and reproduction, are the most simple of living beings. They multiply by spontaneous fission, and sometimes the division is not complete, and it is one of these forms which constitutes the chain-micrococcus. Now, it is this chain-like micrococcus that appears to have the most direct relation to puerperal fever, and also it has, so far as microscopic evidence is concerned, been found in erysipelas, diphtheria, and scarlatina. When the chain-micrococcus has gained admittance to a wound, it especially selects the lymphatics for its seat of action, and rapidly extends along these vessels and the lymph-spaces. It may be truthfully affirmed that there is no more favorable ground for this organism than the wounded lymphatic system of the living mammal.

We have all heard puerperal fever called septicemia, and many of us have thought with justice. Now, in septicemia there is present a true bacillus, and it is, perhaps, the very best example of the anaerobic bacteria. This bacterium is also the leading member of the class which begins the process of putrefaction. It is found in the lower part of the intestines, where there is no free oxygen, and its malignity seems to consist in its wonderful power of reproduction. Its growth it attended by very noxious odors, for it liberates the sulphur and phosphorous gases from the tissues. It is found whenever dead albuminoid substances are undergoing decomposition. It is very numerous in cadavers, making its appearance a few hours after death.

The almost unfailing existence of large quantities of these two micro-organisms—the chain-like micrococcus and the septic bacillus—in the discharges of women suffering from puerperal fever has been conclusively proved, but whether they are the cause or effect is still sub judice. Hausmann, of Berlin, observed that septic symptoms followed the injection of septic material into the uterus of a pregnant rabbit. An excited experimenter might here see the cause of septicemia, but the philosophic biologist would remember that there has been inoculated not only the living organisms, but also the chemical results—the debris—of their existence in a previous environment. If we separate from each other the bacteria and the fluids in which they have lived, the results with either are negative.

At this stage in our inquiry perhaps it would be well to turn our attention to the vexed question of ptomaines. When I use the word ptomaines I mean the alkaloidal products of a purely chemical process which, without the intervention of micro-organisms, is asserted to arise in dead animal tissue. These alkaloids are said to exert an action upon the living organism very similar to the physiological action of atropine. It is claimed by certain experimenters that these alkaloids are the originators of the class of diseases which we are discussing to-night. Accept this position, gentlemen, and you may, reaching back over the expanse of two thousand years, clasp hands with the immortal Hippocrates. The march of centuries, then, has accomplished nothing; the old humoral pathology leads the van; the cycle of medical time has made its revolution, and we are again at the starting-point. Now, what I wish to say is that no chemical substance has been proved to have the power to originate out of its own environment a product which, as to its molecular formula, is identical with said substance. According to Brieger, it requires one-thirteenth of a grain of mydaleine to kill a rabbit; the microbes on the point of Pasteur's needle will do the same. I am so bold to say that Brieger could not recover from the remains of said rabbit more mydaleine than would naturally be found therein, while Pasteur would harvest millions of microbes for every one planted. I put the whole subject in a nut-shell when I declare animal alkaloids

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) be unreproductive and microbes to be re-roductive. It is true that Brieger has found oisonous alkaloids in a dead body; but this gnifies nothing until he has proved that ie given cadaver was not acted upon by icro-organisms previous to his analysis, or iat the alkaloids are the direct food of the icrobes, and are consequently pre-existent. ow, when a person receives a poisonous se of atropine, there is no increase in the mperature; if an alkaloid like atropine is ie cause of puerperal fever, there should be) pyrexia. As corollary to the foregoing 'opositions I may assert that, if any one ubts the power of microbes to produce a irect chemical change, I refer him to the oved fact that organisms found in certain lphur waters have the power of reducing ie sulphates of said waters.

We now approach the facts as regards the ird division of the subject, and upon these shall dwell very briefly, as they are to be ore fully considered by one of the subse-ient speakers.

It is known that puerperal fever is more li-le to follow a tedious labor than one of 'erage severity; an instrumental rather than non-instrumental; that tedious labor is fre-ient accompanied by extensive laceration the cervix uteri; that the external wounds e the ones which usually become the seat of phtheritic deposits; that the so-called diph-eritic deposits of the higher genital tract e in reality superficial sloughs; the reten-n of a portion of the placenta is more like-to be followed by puerperal fever than is mplete expulsion of that body; that the ly g in woman, through the condition of her lvic organs subsequent to delivery, offers, for as temperature, moisture, the presence appropriate microbian pabulum, a suitable vironment for the growth of the aerobic icro-organisms, and that the debris of the owth of the aerobic organisms is a suitable od for the anaerobic bacteria.

Finally, then, having gone over the ground a fragmentary manner which would require lumes to fully elaborate, I must say that ie cause or causes of puerperal fever are un-know, and, as has been observed by Grandin, it is not scientific to dogmatize while our knowledge is in so chaotic a form. The one great fact, as has been observed by Pasteur, is the unfailing evidence of the existence of micro-organisms, or of the results of their action.

Having thus delivered my judicial opinion, it may not be taken as presumptuous if I declare it to be my own personal conviction that micro-organisms are one of the main factors in the causation of this disease. I do hold that the state of the puerperal woman as she comes to childbed is particularly hazardous. She offers an organism whose natural resources of defence are reduced in number and in strength; a circulation whose rapidity is lowered; an abundance of moisture; a propitious temperature; an exhausted mind and nervous system; a pelvic lymphatic system, laid open by lacerated wounds—a most fitting nidus for the indwelling of the chain-micrococcus; large blood-vessels peculiarly deprived of free oxygen, especially suited for the rapid advance of the aanerobic septic bacillus of septicemia.

To me this is a clear mental picture of what I conceive to take place when a woman contracts puerperal fever. By reason of the above-mentioned condition of her blood and the character of her labor, she is especially prepared to receive into her genital apparatus such microbes as may be conveyed to her upon the hands or instruments of her attendants. If, now, it be the septic bacillus, and the quantity large, and the inoculation direct into a blood vessel, the result is a rapid fulminating case; it is a matter of a few hours. As you stand by the bedside of a woman thus inoculated, you may safely say that here is a direct inoculation of septic material, of a *contagium vivum;* that here the method of Semmelweis would have prevented the condition; here some one is guilty of manslaughter. Supposing, however, that the inoculation is done with the chain micrococcus. After the stage of incubation, which is about three days, has passed, there appears usually upon the external genitals a diphtheritic patch, or

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perhaps there is no patch, but the lochia becomes ill-smelling. The micrococci, which now swarm in the discharges, having clustered themselves together in great masses, and become attached to the mucous surface, thus largely constituting the said diphtheritic patches, begin, from dearth of food-supply, to advance along the lymphatics. Their path of advance is not by the blood-vessels, simply because the number of red blood-corpuscles, the carriers of oxygen, is reduced; and, on the other hand, here abound the white blood-corpuscles, which, as Sternberg has pointed out, are the natural antagonists of the microbes. Nevertheless, the leucocytes, which constitute the police system of the organism, advance in vast numbers to repel the attacks of the invading microbes. Countless numbers of leucocytes and microbes are killed, their dead bodies constituting what is called pus. Finally, the leucocytes, by means of the half-dead bodies of their comrades, build up a rampart in the ends of the blood-vessels and lymph-channels. The rest of the maternal organism is thus shut against the victorious host, and consequently its food-supply becomes limited. As the pabulum decreases, the adult microbes perish, but they are survived by innumerable spores. Should, now, the process cease, the woman has a slight chill and a few degrees of pyrexia—it is the "milk fever" of the third and fourth days. But now the septic vibrio finds the conditions of his existence. The spores of this bacillus, free oxygen being absent, begin to develop. This bacillus feeds upon the bodies of the dead microbe and the dead leucocyte alike. His carnage gives origin to gases of putrefaction, which, as their volume increases, seek an egress. Pressure is brought to bear upon the ramparts of the leucocytes, eventually a weak spot is found, the leucocytes are pushed to one side, and a host of microbes, which have been dormant but not dead, are hurled into the blood-channels and lymph spaces. The white blood-corpuscles rally; they grasp in their ameboid embrace the advancing host. Each leucocyte is an officer of the law; he takes a microbe prisoner and hurries off to the nearest lockup. If now the arrest has been made in a lymph-channel, he takes his capture to the nearest police station, which is the nearest lymphatic gland or space; but if the seizure has been made in the blood-current, the urgency being great, the microbes hustled off to the great court of justice of the human organism—which is the kidney. Here the microbe is deposited. The kidney cell, which is at once judge and executioner, passes sentence, and the micrococcus, or what remains of it, is transported out of the body-politic. The maternal organism has proceeded with her public offenders as England did a century ago. Still, at times, the number of criminals in the half of justice is so great that a riot takes place. A number of officers and judges—leucocytes and kidney cells—"bite the dust," and we, observers, notice albuminuria. Supposing, however, that the courageous leucocyte gets a hold on a septic bacillus, or rather a septic bacillus gets a hold on a leucocyte; the leucocyte makes an endeavor to reach the courts, but at some point in the journey the bacillus kills the leucocyte—*e. g.*, the officer is assassinated by his prisoner. A general fight takes place at this point between leucocytes and bacilli—the result eventually being a metastatic abscess. The bacilli again resort to their putrefactive gases—in other words, they use dynamite. The bacteria, by means of their atropine-like debris (alkaloids), paralyze the vaso-motor nerves. The blood-vessels become dilated. The circulation is slowed down. The police can not reach the central station with their captures. The septic bacilli and the microbes carry the day. The friction of the fight carries up the general temperature of the patient. A fatty degeneration of the tissue-cells of the body takes place. The battle closes with the patient's life.

In every human organism the blood-vessels and lymph-channels constitute a great system of highways and byways. Along these crowded thoroughfares there whirl an innumerable host of red blood-corpuscles—the artisans of the body-politic. Meandering along down the sides of these "arteries of

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ravel" stroll the leucocytes, officers of the aw; like most policemen, proverbially slow-oing, frequently coming to a stand-still when ney are not hustled by the strong public pinion moving in the middle current. Never-neless, they are the constituted protectors of ne active little red blood-corpuscles. As they surely perambulate the wide avenues of ne human republic they carefully examine very flaw in the perfect pavement, for by hance one of those general foes of the ociety, a micrococcus, may be attempting o push a way through or digging a pitfall to atch the foot of some unwary citizen. hould, however, the burly leucocyte find a eptic bacillus, then he unearths a true anar-hist. The result is a "Haymarket" riot.

ASE OF GUNSHOT WOUND OF LIVER--RECOVERY.

BY A. P. FRICK, A. A., SURG. U. S. A.

Mr. F. S., a stock raiser, residing near Fort homas, A. T., aged 57 years, was admitted nto the Camp Hospital on March 15, 1887.

On March 12, he had been on his range, lone, looking after some cattle. When at nch, about 2 o'clock P. M., he tried to drink om a brook without using a cup, and while ooping for this purpose, his revolver (a olt's, caliber 44), fell from his pocket, the ammer striking a rock, and discharging a ad into the right side of his body.

The wound is accurately described as fol-ows, viz.: Wound of entrance 5½ inches out-ardly from the anterior median line of the ody, and about midway between the axilla nd the anterior superior spinous process of ne right ilium.

The exact measurements (the patient lying at on his back) are as follows, viz., Right cilla to wound of entrance 9 inches; anterior perior spinous process of right ilium to ound of entrance 8½ inches. Right axilla o wound of exit 10 inches; anterior superior inous process of right ilium to wound of cit 8 inches, the wound of exit being about ne inch lower than the wound of entrance, and the length of the track of the ball six inches antero-posteriorly. Distance from wound of exit to posterior median line of the body 5½ inches.

The measurement around the body at the seat of injury was 34 inches.

Those portions of the seventh, eighth and ninth ribs lying in the track of the ball were all comminuted.

Immediately following the reception of the injury there was profuse hemorrhage, which did not entirely cease until more than twelve hours afterwards. He was unable to mount his horse, or walk, and his friends did not find him until twenty-five hours after the accident.

Believing that the wound would necessarily prove fatal in a short time, his friends cared for him near the place where the accident occurred; but on March 14, twenty-four hours after finding the wounded man, it was decided to seek professional aid, and the patient was on that day brought in a wagon as far as Old Camp Goodwin, seven miles from Fort Thomas, where I was then stationed, and placed in my care on the following day, March 15.

His temperature on admission was 99.4°. Rest, quinine in tonic doses, and extra diet were prescribed.

On the 16th the temperature rose to 101.4°, and to 102.6° on the 17th. I now recommended a surgical operation, and on March 18, after consultation, and with the efficient assistance of Drs. E. R. Morris and T. B. Davis, U. S. A., excised parts of the fractured ribs.

At 2 o'clock, P. M., the patient was brought to the operating room, and in fifteen minutes came fully under the influence of the ether which was administered. With the usual antiseptic precautions the parts lying between the wounds of entrance and of exit were divided on a grooved director, from the track of the ball outwards. Upper and lower flaps were dissected back far enough to reach sound portions of the injured ribs. After removing the loose fragments of bone, the shattered ends of the seventh, eighth and ninth

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ribs were cautiously cut and rounded with bone-nippers, guided on the inner side of the ribs by the index finger of my left hand.

Only one vessel, the eighth intercostal artery, required a ligature.

The lengths of the excised portions of ribs were about two and one-half inches, thus bringing into view the right lobe of the liver over a space of two and one-half by six inches, and showing a long lacerated wound of that organ, with an abscess one and a half inches in depth situated about the middle of the exposed portion. The abscess discharged pus mingled with bile.

After removing all lacerated parts that must necessarily slough, the entire wound and the cavity of the abscess were thoroughly syringed and cleansed with a solution of bichloride of mercury (1 part to 1000). A drainage-tube was now inserted into the cavity in the liver, another laid across the wound from the point of entrance to that of exit of the bullet, and the parts brought together by means of the interrupted suture.

The duration of the operation was thirty-five minutes.

The patient was then returned to his bed, a draw-sheet placed under him, the surface sponged frequently with the bichloride solution, and lint wet with lead and opium lotion kept constantly applied. The lotion was kept as cool as possible without having ice, and the cloths changed every few minutes for the first two or three days.

Magendie's solution of morphine (ten minims) was administered hypodermically, as soon as the effects of ether had passed away, and afterwards quinine five grains, with one grain of opium, were given three times daily. In addition to this about six ounces of brandy in the form of egg-nog were given every twenty-four hours.

Twice each day the drainage-tubes were cleansed, and the parts thoroughly syringed through them with bichloride solution.

Mild, cooling laxatives and rectal injections were given as needed. Later on, ammonii carbonas was added to the stimulants. Milk, beef essence, etc., were liberally given, and the same general treatment as above noted was pursued until all danger from peritonitis and septicemia had passed.

The temperature in this case the day before the operation was 102.4°, which (with the exception of the tenth day after operation, when a temperature of 103.4° was noted) was the highest reached throughout the case.

Through the central drainage-tube there was a free discharge of bile during the first ten days.

Troublesome bed-sores and slight necrosis of the proximal end of the ninth rib, requiring operation, were the only complications of any note that were encountered.

On June 1, 1887, the patient was discharged, cure complete, and in every way satisfactory.—*Med. Times.*

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There were received at the office of the Secretary of the Illinois State Board of Health, during the quarter ending Dec. 31, written communications at the rate of more than five thousand a year.

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THE WEEKLY MEDICAL REVIEW.

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ORIGINAL ARTICLES.

THE ST. LOUIS WATER SERVICE—THE PRESENT—THE FUTURE.

BY JOHN A. HORNSBY, M. D.

Read before the St. Louis Medical Society, May 26, 1888.

Water in Nature's vast laboratory, serves far greater purposes, is of more comprehensive utility, than any or all the elements that go to make this universe of ours. Beneath its silent bed are formed the foundation strata of the earth we live upon. Within its giant depths, there is a world of being as replete of animation and organization as this we see around us. By its magnetic touch, are wrought ineffaceable changes in all things animate that are within the confines of Nature's domain.

And, just as in the economy of Nature, this element water plays a part second to no influence, so in the economy of man's physiological being its components, its accidents, and its office, must receive a no inconsiderable share of thought in a proper study of those laws by which the equipoise of man's physicial life is maintained.

It is not my purpose in this paper to discuss the relation of water as a chemical element, to those other elements which, in conjunction with it, perform the nutritive and reparative functions or life, but I shall endeavor to briefly recall to your attention the laws garnered from the world's history, bearing upon the active influence of water in its abstract relation to the public health.

Given an individuality and surroundings of his own choosing, intellectual man may be relied upon to observe the admonitions of his own nature, in the selection of that water requisite to the enforcement of those chemical metamorphoses intended to forward the processes of repair and nutrition. This individuality and those favorable surroundings can be present, however, only when man has access to water of a quality to meet his requirement.

Since Menes of old diverted the Nile to insure a never failing supply of pure water for that cradle of civilization, ancient Memphis, the question of water supply for large cities has engaged the attention of the great minds of all nations. In large cities there can be no individuality, distinct entity is crushed out by the mass, and so far as man's temporal need is concerned, it must be to a large degree met out of a common store. Neither the eccentricities of genius, conduct nor appetite must be allowed to displace or interrupt the community interest, a grand medium must be evolved out of the sum total of individual requirement, and in the matter of this staple water, it has been universally deemed expedient to reach that medium by means of a general and distributed supply.

At the present time the question of water service is engaging the attention of the people and the authorities of this city, and I submit that this time is not inauspicious, nor this occasion inopportune, nor the halls of this society inappropriate for the presentation and discussion of this, a vital question to this municipality.

It has grown the custom for the people of this city to insist that the supply of drinking water available at this place was the purest and most wholesome to be found in such quantities upon the globe. When the fashion of thus boasting began, I have no doubt the claim was founded in fact, and that

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St. Louis was greatly blessed in an abundant supply of good drinking water, but I submit that the claim still maintained is fallacious, is based the upon the past and is not warranted by the realities of to-day.

The village of St. Louis in the years long gone by, derived its water from a practically virgin source, neither the Mississippi nor the Missouri had then become the common sewer for the north and northwest that they are today. Then there were no large cities whose offal was poured en masse into these rivers. All this is changed now, along both these mighty streams, there have sprung into existence grand and growing cities, of which this, the queen city of the West may well be proud, but whose very existence burdens her with the problem of a crying need.

Chicago, years ago, found ample outlet for her refuse in the lake that laves her feet, but recently the authorities of that city have purposed washing their filth into the Mississippi by way of the Illinois river, and at this time there is being made a gigantic effort to execute this purpose by the enactment of legislation in the national congress.

It is conceded of late that the present service is inadequate to the demand for water by this city, and the initiatory steps have been already taken to secure a more comprehensive and permanent supply.

These facts, the fouling of the source of supply by cities above this point, and the present action of the authorities toward the perpetuation of the system now in vogue force upon those responsible for the physical welfare of this people, some grave questions, questions that demand unequivocal and honest answers.

The question arises, will the flushing of those cities north of this point, Chicago, St. Paul, and those others both remote and proximate interfere with the hitherto high standing of St. Louis on the plane of health? If this question must be answered affirmatively, then the other question of the judiciousness of the present action of the authorities answers itself in the negative.

If it is deemed even possible, from a scientific standpoint, that sewage pollution of the river at this point can be, then another extremity is reached. Whence can this city derive her supply?

I take occasion at this junction to free myself from the pardonable suspicion of having worked toward a preconceived theory. I say that what ever my preconceived suppositions were, I have invariably discarded them before the light of my research and come to the subject free to accept the verdict of an unbiased investigation. I have searched for facts independent of conclusions, and it is these, that I now ask leave to present.

I believe that the answers to the interrogatories that present themselves must be finally based on scientific research, that candor must rule preeminent, and that a rounder knowledge must be called into requisition than can be at the command of those expert in any one direction. It is not enough to be a capable and learned hydraulic or civil engineer, the laws of hygiene, chemistry, physiology, pathology, and microscopy must determine at last the solution of the problem which I hesitatingly approach.

I present now two analyses, one of the water of the Mississippi river, taken at a point just out from the influx tower at the low service station; the other of the water of the Missouri river taken at a point immediately above its mouth. These samples were taken in November last, at a low stage of the rivers:

	Missouri. Grains per U. S. Gallon.	Mississippi. Grains per U. S. Gallon.
Total solids	70.5	45.96
Loss by ignition	11.37	9.85
Filter sediment	37.26	22.73
Sulphuric acid	5.24	4 08
Lime	6.43	5.54
Magnesia	2.45	2.30
Chlorine	1.14	0.95
Iron and alumina	3.26	1.57
Chloride of sodium	1.87	1.54
Carb. of lime	4.92	4.79
Carb. of magnesia	5.15	4.85
Sulphate of lime	8.92	6.94
Hardness	6.97 deg.	6.25 deg.
	Parts per million.	Parts per million.
Permanganate test	37.3	37.6
Free ammonia	.005	.01
Albuminoid ammonia	.18	.06
Nitrates	.05	.05
Nitrites	None.	None.

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I will not discuss the chemical constituents of these two waters; such treatment would be not only wearisome to you, but would be presumptious in me, and repetition of the opinion of those men who have shed the light of their intellect upon this subject. I take it for granted that all are familiar with the literature upon the subject of the effect of the various chemical elements that find place in the samples of water just presented. Suffice it to say, that the commonly accepted repulsive combinations do not occur in these waters in sufficient quantities to justify fear for the health of those who utilize the waters. It will be observed that the nitrates, the nitrites and the chlorides (of which last the chloride of sodium is assumed to be the base), are not excessive. It will be observed that the hardness of the water does not materially differ in the two cases, and in neither is it excessive. As for the organic components, or rather the organic matters to be found in the two samples; one three thousandth part of a grain of albuminoid ammonia to the U. S. gallon is not worthy of serious consideration; of free ammonia (which means less even were it present) the amount is infinitesimal; of nitrites there are none; and the permanganate of potassium test has yielded only 37.6 parts of solid organic matter to the million of water. The inorganic solids, however, while of questionable injury to the water as a drinkable fluid, are great in quantity, as might have been demonstrated at least a few weeks ago, without resort to the appliances of the analytical chemist. Their effect upon those utilizing the water for drinking purposes I believe to be in the direction of inconvenience rather than direct injury, and while discussing the problem of a new supply, the question of this inconvenience must not be lost sight of.

I have had no means by which to satisfy myself as to the microscopic inhabitants of the water we drink, and have been less eager to enter upon an inquiry in this direction, knowing as I do, how unsatisfactory a less than very thorough investigation would prove. I might have found baccilli or infusoria or animalcules of one character at one point, and an altogether different race of beings in water six inches away in any direction.

It is an accepted fact in this day that water agitated and in volume is the greatest diffuser of disease and other germs and microorganisms known to scientists, and it will be admitted upon all sides that that city will fare best, all else being equal, which has the largest volume of water continuously traversing its sewage expanse; while this is true, it does not conflict with the verity of another statement that the diffusion of disease germs does not destroy them, that the dilution of sewage is not purification.

I think I will not serve my purpose better than by the introduction at this point of an extract of a report made to the mayor of this city in 1874, by Dr. D. V. Dean (a member of this society), who was at the time city chemist. In treating the question of present and future water supply, Dr. Dean said: "Whatever may be yet further accomplished in the way of improving the waterworks supply after it is brought from the influx tower in the river, as by filters, more settling reservoirs, the more frequent cleansing of the reservoirs, protection from dust, etc., it is evident the river will be worse as a source of supply, and never better, so long as it is made the receptacle of all the sewage and other filth along its course. It is only because of the magnitude and motion of the stream, that the mixture in our river loses so much of repulsiveness that many give it no thought. But the statement so long current, that a mixture of one part sewage to twenty of water, will clear itself in running twelve miles, has been proven to be incorrect. The rivers commission of England has shown that in such a mixture the sewage is not destroyed in running 160 miles. Dilution of sewage is not purification. By sufficient dilution, simple toxic agents may be rendered harmless, but diffusing enteric fever, choleraic and other zymotic germs, does not destroy them; they remain animate prolific matter ready to dis-

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seminate disease wherever a suitable medium ornidus and field are found."

Mr. President, these patent truths are no less important to-day, than when the learned gentleman gave sanction to them fourteen years ago; on the contrary, the present demand for a new or extended service, and the activity of the authorities in the direction of securing the same, give the matter a greater import, and it is now almost the eleventh hour in which to speak for the remedy of an evil, if such exists.

Bear with me briefly: the water taken from the river at the low service works is pumped into one of five settling basins; in these it is allowed to stand for the purpose of settling, for from six hours to three or four days, after which time it is ready for distribution—or rather it is distributed whether it is fit or not. There is unquestionably a large deposit of inorganic matter, and Prof. Koch has demonstrated in his "Bericht ueber die Untersuchungen des Berliner Leitungswassers" for 1885 and '86, that in depositing the inorganic suspended matters in water take down with them much of the organic matter both in suspension and that in solution. If this is true, and the authority is sufficient guarantee of the fact to warrant such assumption on my part, then I make this point: being carried to the bottom of these basins, these organic matters undergo the processes of fermentation, of decomposition. I ask,is it not possible that there are also in this deposit micro-organisms (disease germs perhaps) which are actually cultivated, as it were, in an element native to them or at least favorable to their fructification?

I have it on the authority of the water commissioner of this city, (who has materially assisted me with valuable suggestions and important facts, I desire to say) that those basins are cleansed rarely, or at least, that they have not been cleansed now for more than six months. Who will say that Prof. Koch himself can prepare an artificial soil for the culture of his pet bacilli more favorable than could be found in this fermenting, decomposing mass of deposit?

Leaving this point, I take another: admit, as Koch says, that in subsiding, the particles of sand, silt, clay, etc., take down with them a large percentage of the organic components of the water, is it not possible that with the freeing carbonic gases, the liberated hydrocarbons, there may be also noxious gases having an affinity for water and eager to enter into solution with it? It will be apparent that I have been unable to satisfy myself on this point, and the reason will also be appreciated. I therefore decline to theorize upon a point, which at best could be only empirically investigated.

A few words only upon the proposition to establish a river service at the Chain of Rocks: It is true that in going above the city, an immunity may be had from the offal of the north end; the repulsiveness of the idea of sewage contamination and the refuse from the soap factories along the river and the small tributaries in the vicinity will be lost, but will the real and unvarnished advantages of the change compensate for so stupendous an expense, and the relinquishment of other and at least pleasanter solutions of the problem? It is contemplated that an immediate expenditure of $3,000,000 will be required to inaugurate the system; this is the amount asked—do not all know that in the matter of public work, the first requisition is merely an entering wedge for a real and substantial demand? In the light of the past, I feel justified in the assertion that the $3,000,000 now asked for will not establish the system as is contemplated. But what of that, it may be exclaimed! If the purpose is served—if the people are accorded the satisfaction demanded, surely the money could not be more happily expended than in the securement of a bountiful and pure supply of drinking water! But, Mr. President, my object in thus intruding upon the attention of this society, is to create what in my opinion are a few pertinent questions, for the thinking men to answer, that thereby a scheme may be evolved for the permanent establishment in this city, of a system of water service which in the years to come, may not be deemed either inefficient or in any way unwise.

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In departing finally from this part of the ubject, which I have perhaps ramblingly pre-ented, I beg leave to epitomize what I have lesired to impress:

The water from which this city derives its upply, is not bad—at least, chemical examin-ation fails to prove it so; it is certainly how-ver, not so satisfactory as it was in the early istory of the city, in that there is at this ime a grave question in the minds of even he more conservative of men, as to whether r not sewage pollution exists in the river at his point. In the light of the past, a condi-tion of things tending in this direction—it is but fair to presume—will not improve as the country tributary to the source of supply becomes more densely populated, but rather the reverse; that indefinite yet pronunced ob-jection to the water by some scientists, as well as the laity, will increase, until—it may be predicted—there will come a time not far in the future, when the vagueness of the pre-sent objections will have risen from behind the veil of speculation and undefinedness, and have assumed the proportions of a horrible reality in the form of a plague or devastating epidemic.

I had desired to quote from a report sub-mitted by the president of the St. Louis Board of Public Improvements, to the mayor of the city some six months ago, bearing upon the question of comparative quality of the waters of the Mississippi and Missouri rivers, but the gentlemen directly concerned saw fit at the time of the submission of the docu-ment, to give for publication only brief ex-tracts of it; this much, however, I will be able to assert as part of the statement of Col. Flad; it was his desire to so place the new low service, that only the waters of the Mis-souri river would be utilized, and in comment-ing on the relative merits of the two waters, he made the point that though the chemical analysis showed the water of the Mississippi to be preferable, yet much experience at the time of the building of the bridge, discovered that workmen upon the bridge were made sick—given diarrhea—by drinking the water of the Mississippi, to such an extent that orders were made peremptory, that the men were to drink only Missouri water, much of which had to be taken for the purpose to the Illinois shore of the river. I do not cite this responsible opinion for the purpose of show-ing the water of the Mississippi to be bad, but only in substantiation of an old idea that chemical analysis is only a small part of the work necessary to determine the merits of water as drinkable fluid.

Taking it for granted that the authorities have acted wholly for the best interests of the people they are sworn to serve, I still submit that it has been a grave mistake to confine all effort to the perpetuation of the present system, rather than in the direction of discovery of a less questionable and more universally satisfactory source of supply.

Mr. President, some years ago—many years ago, in fact—there was a movement on the part of the citizens of this city in another direction. The long headed, thinking men—our honored forefathers—realizing that one day provision must be made for thousands where there were then hundreds, and further realizing that in numbers there lay a danger—from the standpoint of hygiene—turned themselves about in search for a fountain of health, and youth and purity upon which to base the lasting prosperity of this people.

A somewhat exhastive examination was made to ascertain the feasibility of utilizing the waters of the lake Creve Coeur, for drink-ing and other common purposes for this city; it was at that time known that the source of supply for both these picturesque bodies of water was the Missouri river, and that the method was by filtration through the soil be-tween them and the river. It was ingeniously theorized that the waters of the river might be utilized, and that nature's impromptu filter might be made the means of purification. The fond hopes of the projectors of this scheme were shattered, however, when the first inquiry discovered the fact though nature did the work of filtration well, she was not doing it in this instance on a scale commensur-ate with the requirement—that, in other words, the supply of water to the lakes was

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not sufficient in quantity to answer the purpose.

So important was the question deemed however, that further search was made and that in the direction of the Meramec river, which has its rise in the Ozark mountains westward from this city. The river itself was found impregnated with impure matters taken from the soil through which the river flowed, and from the offal picked up along its course. Experiments however, gave promise of success to such extent that the state of Missouri took the matter in hand, and prosecuted an investigation both in the direction of ascertaining the value of the water as a drinkable fluid, and to establish the fact of the navigableness or otherwise of the stream from its source to its mouth at the Mississippi.

The discoveries then made are a part of the history of the state, and are embodied in the official documents of the general assembly for the year 1841. There is to be found in that record, a report made to the senate—in response to an official inquiry,—submitted by Wm. H. Morrell, at the time, chief of the engineer corps.

It will be useless to quote from the report: suffice it to say that from actual measurement, then made, the amount of water leaving the mountain was ascertained to be 5658 cubic feet per minute. This measurement was made at an unusually low stage of the water, according to the statement of the engineer quoted, and was much less than the average amount.

At the instance of the United States Senate, the department of engineers, U.S. Army, prosecuted a further inquiry in the same direction, a report of which is embodied in the records of that body for the year 1880. At this time, the purpose was to ascertain solely whether or not the Meramec was navigable for purposes of commerce. In deciding that the river was not navigable to a material extent, facts were adduced as follows: the fall of the river from its source at the spring to its mouth at the Mississippi, is 400 feet; at a very low stage of the water, the volume was 100 cubic feet per second, a slight increase over the finding of the state engineer in 1840. In neither of these investigations was there a chemical examination made of the water; in both occurs the statement that the water is clear, cold, apparently pure, and free from surface contamination.

I have taken upon myself the remaining feature of the examination, namely, the chemical, and at this point, I desire to present it preparatory to discussing it upon its merits. The water was taken from the river immediately as it left the hillside, and can therefore contain none of the matters acquired upon its later voyage to the mouth. The analysis was made by Prof. Wm. B. Potter of the Washington University, and is therefore reliable—absolutely.

ANALYSIS OF WATER FROM THE MERAMEC SPRINGS

	Grains per U.S. Gallon.
Total Solids	8.33
Loss by Ignition	3.21
Filter Sediment	None
Sulphuric Acid	0.29
Lime	2.25
Magnesia	1.15
Chlorine	0.16
Iron and Alumina	None
Chloride of Sodium	0.26
Carb. of Lime	3.49
Carb. of Magnesia	2.64
Sulphate of Lime	0.36
Hardness	Degrees, 4.46

	Parts per Million
Permanganate test	7.05
Free Ammonia	.18
Albuminoid Ammonia	.19
Nitrates	2.80
Nitrites	None

It may be seen that there are only 8.33 grains total solids to the U. S. gallon; that there is no filter deposit; that there is .1 of a grain of chlorine to the gallon, and from the direct manner of taking the sample, and from the character of the formation whence the stream issues, it may be assumed, I think, that the chlorine came about in the form of common salt. Of organic matters there are proven to be only 7.05 parts to the million (ascertained by the permanganate test); there is absolutely no albuminoid ammonia, showing perfect freedom from animal and vegeta-

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ble decomposing matter; there are no nitrites, and contrary to the preconception, and the assumption of the local authorities, the hardness is represented by 4.08 degrees as against 1.25 degrees for the Mississippi.

I believe I have established the superiority of this water over that now in common use in this city, and the remaining question involves the feasibility of leading the water into this city for consumption.

I will try to be brief. From the profile which I ask leave to present, it will be seen that the country is not difficult of traverse for the purpose, until the valley of the Meramec itself is reached; and the difficulty there to be overcome is the knoll just west of Kirkwood, about fourteen miles west of the city. A tunnel would be required at this point, to favor the gravity demanded along the entire course, but with this exception, such costly excavation would not be required. The total fall of from 350 to 400 feet (allowing for the difference between the estimates of the two surveyors) will admit of the subjugation of any engineering difficulties that may present themselves; the question is one of cost only, and this feature I shall now take up for discussion: The supply of water for the past year was 30,000,000 gallons, which amount reached the demand; the capacity of the present machinery is hardly greater than that amount.

The out put from the Meramec spring is—according to the estimate of the U. S. engineering department,—made at a period of markedly low water, 74,418,080 gallons for the twenty four hours. Figures made for me by the water commissioner of this city, estimate that three 48 inches pipes would be required to transport the entire out put. For last pipe the cost would be—for the pipe made and laid—$9,500,000 each, or the total of $28,500,000 for the three. Of late however, it has been proven that wrought iron pipe is not only much less expensive, but more durable, and experiments made in California for purposes of irrigation show that the wrought iron pipe will withstand much greater pressure than that made from any other material. Were this pipe utilized, the cost would materially fall below the figures given above. It is also admitted by the authorities that conduits of masonry could be substituted for costlier material in many places, thus further lessening the first cost. Estimating liberally, then, the execution of this project would cost $20,000,000.

The figures estimating the cost of such a giant project are undoubtedly enormous, the redeeming feature being that the first cost would end the expense, since the plans call for the substitution of nature's gravity, for the present immense machinery. The discontinuance of the cost of this machinery, would foot up an annual balance in favor of the Meramec scheme of an amount reaching to nearly half a million dollars. Settling basins would not be required, thus again subtracting an expense, and until this city numbered a population of one million people, there would be a most bountiful supply of water such as no other city upon this continent could boast. It may be urged that such an undertaking is past the execution of man. I say not so, and did time allow, I could expatiate upon the wonderful architecture of even the ancients in this direction, and among the ruins of the ages now long passed down the aisles of time, there stand boldly out from the achievements of the past, grand models—now in ruins—for such colossal work. I could tell of the aqueducts of Spoleto, constructed in 741, by Theodoric, king of the Goths; I could tell of its arcades 800 feet long, 44 feet wide, and 480 in the clear. I could cite the aqueducts of Caserta, built upon three tiers of arches by Charles III of Naples; of the conduits of St. Clement and Montpellier, of a later period; of the Arcueil aqueduct built by the Emperor Julian in A.D. 360; of that at Lisbon, and the wonderful engineering required to lead the water through mountains and over valleys; of the aqueduct of the Loch Katrine in Scotland, which leads the waters of the lake for 34 miles into the city of Glasgow, and last but far from least is that marvel of achievement, for any country and any time, the Croton aqueduct which supplies the city of New

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York from the Croton lake more than 40 miles away; here, the river was 88 feet lower than was necessary to make the head required; a dam overcame this, and raised the water to the required level, making a lake of 400 acres, and giving a fall of 51 feet in the entire distance of 40 miles.

I cite these instances only to prove that the project has been achieved, and that even greater things have been done.

Mr. President, in closing this already tedious paper, I wish to repeat that it has not been my object either to criticize, condemn, or even to find a remedy, for what is termed by some at least, an evil. I have endeavored to present some facts, making questions for wiser men than I to answer.

EPISTAXIS.

The following is the substance of the treatment for epistaxis recommended by Dr. Sajous:

Position is an important element. Have the patient stand up, if possible; if not able to stand, lie flat upon the back. Immerse the feet first thing in hot water. Apply blister over liver. Insufflate a powder composed of equal parts of tannin and gallic acid, or a dram each of the above to an ounce of water, and apply with cotton wool.

If all this does not stop the hemorrhage, we must then resort to plugging. For anterior nares use small pieces of sponge fastened to a string, which serves to draw them out. To plug posterior nares, pass a flexible catheter through the nares to pharynx, and bring it out of the mouth with long forceps; to the end projecting from the mouth attach a string which has a plug of cotton secured near the center; draw the catheter out through the nose. This leaves one portion of string projecting from nose, and the other end hangs from the mouth. In this way you have full control of the plug. Plug should never be left in the nose over thirty-six hours, ten hours the minimum. Remove with care. It is well to apply a spray of warm alkaline water before removing.—*College and Clinical Record.*

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SATURDAY, JUNE 16, 1888.

TREATMENT OF TYPHOID FEVER IN THE CINCINNATI HOSPITAL.

Dr. Forchheimer administers calomel in five grain doses every evening or twice a day till fifteen or twenty grains are given, provided the patient is seen before the sixth day of the disease. He gives three drops dilute muriatic acid combined with two grains of quinine for their tonic action and to promote the secretion of the gastric juice.

For the reduction of temperature when it rises to 103° F. the patient is placed in a warm bath, beginning with the temperature of the body, and gradually cooling to 70°, patient to remain in bath fifteen minutes and then put to bed. The result of this treatment is the temperature is reduced to the neighborhood of 101°, and the patient is refreshed and he sleeps. When necessary the baths may be repeated ten or twelve times in the twenty-four hours.

Heart stimulants are given from the onset of the disease and increased if necessary. Morphia is given to control cough. Nervous phenomena, such as delirium, carphologia and pain, he controls by the use of morphia, bromide potasium, antipyrin and acetanilid. Diet: milk, buttermilk, oatmeal gruel, beef tea and beef-juice. To control vomiting, carbolic acid in milk. For intestinal hemorrhage, gallic acid, morphia, and transfusion of salt water are the remedies used. Pain in the abdomen is controlled by external applications of ice, and morphia given internally.

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Diarrhea is checked by tannic acid or tannate of quinine.

Patients are not allowed to leave their beds; bed pans and urinals are furnished them. Mortality under this treatment was about ten per cent, but considering the fact that the five deaths occurred within from thirty-six to forty-eight hours after admission, Dr. Forchheimer thinks the mortality rate was about four per cent.

Dr. Wm. Carson gives, in cases of moderate type, dilute muriatic acid ten drops well diluted with water every three hours, and a three grain dose of quinine about every five hours. Milk, beef tea, concentrated chicken broth constitute the diet. As the patient improves, a raw egg with whisky or wine, or a soft-boiled egg is given.

High fever is reduced by sponging the surface of the body with cold water. If grave nervous symptoms arise, a warm bath is used for ten minutes and repeated every three or four hours. If necessary the sponging is supplemented by the use of antifebrin in ten-grain doses.

Diarrhea is treated with turpentine, ten drops every three to five hours, particularly if the tongue be dry and abdomen tympanitic. Hope's mixture is also used. No interference with the diarrhea if the movements are not more frequent than three or four stools in twenty-four hours. For hemorrhage from the bowels, gallic acid in doses of twenty or thirty grains every three hours; occasionally some opium, one-fourth grain every five hours. Perforation of the bowels is treated by large doses of opium and turpentine stupes over the abdomen as the peritoneum becomes more involved.

For severe headache and spinal pains is given a ten-grain dose of chloral, sometimes twenty drops bimeconate of morphia; repeat according to indications and effect in three hours. In vomiting give half drop creosote every three hours, if severe, and suspend other drugs.

His cases are not treated in the belief that antipyretics have any important influence over the disease.

Of sixty-two cases treated there were four deaths. The immediate cause was collapse in three, and intestinal hemorrhage in one.

Of the eighty-one cases treated by Dr. J. C. Mackenzie, twelve were still under treatment, and five had died.

The routine treatment was ac. mur. dil. 10 drops after meals; Hope's mixt. ½ oz. every three hours when diarrhea was excessive. Beyond this, treatment was mainly supportive and symptomatic.

1. Supportive measures consisted of milk and beef tea, and as convalescence approached there was cautiously added to the diet bread, rice and soft-boiled egg.

2. Symptomatic—Whisky and other stimulants, as indicated by weak and frequent pulse, dicrotism, etc.; morphia in full doses in peritonitis; morphia and lead acetate in intestinal hemorrhage.

Antifebrin was given only when there was a continued high temperature (103-104° or over), with only a slight remission. It was given in ten grain doses, and it did not fail in any case to reduce the temperature from two to six degrees. Its administration was always followed by profuse sweating and severe chill; chill did not occur when one ounce whisky was given with the antifebrin. Atropia, gr. 1-96 to 1-60, failed to check perspiration in any marked degree. The effects of antifebrin were noticeable within forty-five minutes after administration, and lasted from four to eight hours.

The wet pack was used in three cases with no satisfactory results.

Diagnosis in Hematuria.

In a clinical lecture published in the *Brit. Med. Jour.*, Prof. Berkeley Hill, of the London University College, epitomizes the etiology and methods of diagnosis of the diseases of which hematuria is a prominent symptom, in a manner that cannot fail to be of great value as an aid to the differentiation of these often complicated and somewhat obscure conditions.

Beginning with a recognition of the fact

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that hematuria is always merely a symptom of a disease, he advises practitioners to closely and carefully go over all the symptoms with which it is associated. Summarizing the causes that produce hematuria, the lecturer names among those general in character; 1, old age, when the prostate has become enlarged and congested; 2, women at the menopause, or sometimes before that crisis is reached, menstruating vicariously; 3, menstrual fluid, mixed with the urine after the latter leaves the bladder; 4, in children malignant tumors of the kidneys, which are common, and often bleed copiously; 5, in certain countries, namely Egypt and Southeastern Africa parasitic diseases that have hematuria for an almost pathognomonic sign; 6, general diseases which modify the blood, such as purpura, scarlatina, measles, or typhoid, and in warm climates, malarial affections; 7, certain drugs such as lead, mercury, arsenic, cantharides, turpentine, copaiba, and asparagus; 8, gonorrhea, heart disease, and exposure to cold and damp air; 9, violent exertion, sudden suppression of a customary discharge, such as epistaxis or hemorrhoidal flux, and even excessive copulation.

Local causes, such as blows on the kidneys, calculi, movable kidney, irritation by strangluli or other entozoa in the pelvis, acute congestion or Bright's disease of the kidney.

The kidney he thinks, is the most frequent seat of disease of which this trouble is a symptom, and in that case the other symptoms are commonly negative, and a diagnosis must be reached by exclusion. He has found that pain and a sense of weight about the loins are the only objective or subjective symptoms that are to be relied upon when the lesion is in the kiduey, in making differential diagnosis, the others of course being direct examination of the urine itself for the products of organic disease.

A point of gereral interest to practitioners is the condition of the blood as it is observable in the urine; where the urine has a smoky or dark tinge, without lines marking the distinction between blood and urine, he thinks it can be safely taken for granted that the disease is renal, and under these circumstances, he has found it possible to determine which kidney is the seat of the disease by placing a catheter at one and then the other of the openings of the ureters after washing out and thoroughly emptying the bladder the bloody urine may in that way be taken before it has an opportunity to mix generally.

With the improved cystoscope the ureteral openings can be distinctly seen.

Prof. Berkeley thinks that in those cases in which the lesion is in the bladder the evacuation of urine will be followed by that of pure or nearly pure blood, where the disease is urethral, the reverse will be case, the blood passing with the first drops of urine.

He discourses too, on the symptoms and signs of syphilis and tuberculosis of the urinary apparatus, placing the symptoms of these in the class of those almost impossible of accurate diagnosis except by means of general symptoms.

Empyema Following Pneumonia.

In pursuing an inquiry into the anomalous sequelæ of pneumonia, Dr. Donald W. C. Hood devotes quite a deal of thought—expressed in the *Brit. Med. Jour.* for May 19—to a discussion of "Empyema following Pneumonia.

He has collected from observing several cases, some data upon which to base a much more reliable diagnosis than has heretofore been possible. He premises his treatment of the condition by statement that diagnosis involves most generally the differentiation between effusion into the pleural sack, and solidification of lung substance, and he predicts that many times, the ablest of diagnosticians will err in attempting to make this differential diagnosis.

In most of the cases that came under treatment, the author of the paper found that the pneumonic attack was not markedly severe, and that usually resolution had progressed far before the diagnosis of effusion became possible; he theorizes that the effusion in

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ıese cases made a late appearance, though he limits that in all the cases it mighthave been resent long before he was able to find it.

In the cases that he observed, he had not een called upon to look for other trouble ıan the pneumonic, until sufficient time had lapsed for complete recovery to have taken lace, and generally it was a failure of the ıtient to steadily improve rather than the resence of any positive symptoms which call- l for treatment that arrested his attention. nce aroused to an appreciation of the fact, owever, that some other trouble had super ened,he had usually been able to find at least onfirmatory signs of a suspected sequel the pneumonia, though only the discovery the pus or sero-purulent fluid by aspiration uld be relied upon for positive diagnosis.

He had seen a case—one of those reported in which the effusion occurred on the left de; in that instance the displaced heart ma- rially assisted in the diagnosis. Another se occurred on the right side in a woman, d because of the impossibility of applying is test of diagnosis, the lesion was sus- ected to be inflammation of the liver, from e fact that that organ was found far below normal site—from pressure upon it—and as of course more prominent than if situated rmally. In both these cases almost imme- ate relief followed evacuation of the fluid.

Another symptom of the effusion, to which tention is directed in the paper is a pecu- ır cough, which the author defines as closely sembling that of pertussis, so spasmodic d persistent was it in all his cases. Other gns that presented themselves, such as a ntinued elevation of temperature, dulness percussion, and dyspnea, are esteemed by m to be of no value,because of the fact that ese will not separate the sequel from the ease itself.

The author of the paper has been fortunate that he is able to report invariable recov- in the cases diagnosticated. He found at the hypodermic syringe in many cases s of sufficient exploratory utility to de- mine the presence of pus without resort to larger and less agreeable aspirator.

Cancerous Tumors of the Breast.

Prof. N. C. McNamara, surgeon to the Westminster Hospital, adds materially to the literature on tumors peculiar to the breast, in a clinical lecture on "Carcinomas of the Breast which Require Operative Interference," published in the *Brit. Med. Jour.* of May 26.

Excluding cases of rapidly growing cancer, also those tumors which develop late in life and grow slowly as well as those cases in which the patients are unfit to undergo operation, the lecturer thinks that by far the greatest number of the tumors of the breast are still left for consideration, and it is to these that he directs attention.

While there are no special symptoms by which malignant tumors of the part can be differentially defined in their early stages, he says that all tumors of the breast are to be looked upon with grave suspicion, and that a long standing "lump," not due to a present inflammation, is to be considered malignant in character until otherwise satisfactorily diagnosed. His advise is that in case of doubt, the tumor should be cut down upon for confirmatory diagnosis, and removed of course, if necessary. He argues that the common occurrence of malignant growths in the breast, and the uncommon occurrence of benign tumors in that locality, make an exploratory incision warrantable unless the tumor can be satisfactorily explained.

The gentleman does not stop here, however, with his argument, but goes so far as to say that cancerous tumors are eradicable in their earlier stages, and that the difficulty of diagnosis at the beginning of an attack would almost warrant the excision of any kind of growth.

The lecturer dwelt particularly upon the procrastinating policy often pursued by general practitioners, when consulted with reference to these troubles. He admitted that it was pleasant to hope for the best, but the man who waited for a result rather than act at once in the direction of operative interference, was responsible for the life of his pa-

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tient; and he was sure that he had seen many women who died the most horrible of deaths because of the carelessness, or worse, of medical advisers.

Perityphlitic Abscess.

Dr. C. B. Kibler reports (*Med. Rec.*) some interesting cases which have a bearing upon the question as to the advisability of opening acute abscesses in the region of the cecum.

In one case he opened the abscess cavity by making an incision five and one-half inches in length in the right linea semilunaris. Five pints of offensive, fetid-smelling pus escaped. The abscess cavity was thoroughly cleansed with a solution of bichloride (1-1000) at a temperature of 104°.

An opening was found in the vermiform appendix through which a grape-seed had passed. It is presumed that this perforation was closed by suture, but it is not so stated in the report.

The abdominal wound was closed with deep silver sutures and superficial silk ones, leaving an opening in which a large drainage tube was kept for eight days. The patient made a good recovery.

In another case it was decided at midnight to operate on the following morning, but before the time arrived three pints of very offensive pus was discharged per anum.

In a third case no operation was performed. Collapse, followed by death, occurred on the eighth day. No autopsy.

In the fourth case reported the symptoms indicated typhlitis. The abdomen was tender and distended, temperature subnormal. Patient died on seventh day. No autopsy. This patient was sixty-one years of age.

In another case in which an operation was declined, the abscess cavity was evacuated through the bowel. Patient recovered. One symptom was common to all of these cases—"pain darting down into the testicle.

Typhoid Fever in Children.

Dr. Edwin Farnham reports (*Bost. Med. and Surg. Jour.*) a remarkable case of "Typhoid Fever in a Child Three Years of Age." The child's father was attacked with a well marked case of the disease. A month later the child was attacked and the following symptoms developed: diarrhea, scanty urine, slight tympanites, complete anorexia, thirst, nausea, vomiting once or twice, mild delirium on a few nights, slight bronchitis, enlarged spleen, rose spots coming out once and few in number.

It is held by many that typhoid fever never occurs in infants, that is, children under seven years of age, but so long as we have to make our diagnosis of this disease from a group of symptoms, we cannot consider the above case anything else than typhoid fever, as there is but one prominent symptom lacking in the case—the usual range of temperature. Post-mortem examinations have taught us that this sign is of little value.

In the case reported by Dr. Farnham, the morning remissions and evening exacerbations, starting at 104.8° in morning, and 105.8° in evening, gradually declined till the Hick's thermometer registered on the twelfth day (of which the record was kept) 95.4° in the morning and 95.2° in the evening. From this it gradually rose till the normal was reached a week later. The temperature was taken in the axilla. It was found impractical to take it in the rectum. The latter is certainly a more reliable method. Dr. Farnham says:

"Through the period of low range of the thermometer beyond a slight irregularity of the heart's rhythm, the child developed no unfavorable symptoms, but gained steadily in strength, slept well, and ate in a satisfactory manner."

We can but think that the temperature in the axilla did not correspond to that of the internal organs.

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EDITORIAL ECHOES

From Indiana State Medical Society Thirty-Ninth Annual Meeting Indianapolis May 5 and 6, '88.

BY I. N. LOVE, M. D.

It has never been my pleasure to attend gathering of a state profession anywhere at was more creditable and in every way ccessful, than the Indiana meeting. Indiapolis is the ideal place for a convention, it obably being more accessible by being the ntral and the focusing point of more railads than any other city in this country. It the permanent abiding place of the Indiana ate Society.

The topography of the city is very suggesve of the city of Washington, the same civil gineer, I was told, having laid out both ties. The idea in both instances seeming be to have all avenues converge toward the pital building like the spokes of a wagon heel pointing toward the hub.

* * *

The chief features of the city seem to be alwart shade trees, warm, winning, cordial, d whole-souled men, beaming and beautiful omen, capacious, convenient and well kept otels, one among the best of the latter beg the "New Dennison." There are miles beautiful residence streets, and the homes e alike suggestive of cash, culture and comrt.

* * *

The natural gas used on all sides for armth and illumination must prove a magt which will draw to the city annually thouands of permanent inhabitants. One need ly say the words: "let there be light" and ere is light, and heat as well for the paltry m of two cents a thousand cubic feet. We St. Louis, who pay one dollar and a half r inferior gas with a three dollar pressure ay well envy the citizens of Indiana's great pital city.

* * *

The doctors are numerous but evidently prosperous, nearly all having offices in the business center of the city, which in their appointments and general aspect suggested thrift and plenty to do. They themselves, had a uniformly well fed, well posted, well-to-do look; their pleasant countenances indicating good digestion, good bank accounts and good consciences. An observation of the mutual good will prevalent among them would in itself have been evidence that the majority are "medical society men." The doctor "with the big round head;" who disbelieves in medical societies, was not apparent and I am inclined to the opinion that he is not indigenous to Indiana soil.

* * *

Heterodox medicine with commercialistic tendencies seems to be "on top" financially here as everywhere else.

* * *

President S. H. Charlton of Seymour, Ind., presided with dignity and grace. His annual address was interesting, carefully prepared, and well delivered. He has reason for feeling proud of the year's work of his society.

* * *

Among the many admirable papers read, were those by

Dr. Thos. B. Harvey, on "Conditions Rendering Diagnosis Difficulty in Pelvic and Abdominal Diseases."

Dr. R. R. Kinne, on "Erysipelas Complicating Pregnancy."

Dr. L. N. Davis, "Obstetrical Report of a Country Doctor."

Dr. W. A. Mendenhall, on "Typhoid Fever."

Dr. J. W. Compton, on "Ante-Partum Hemorrhage."

Dr. Walker Shell, on "Gastrostomy for Stricture of the Esophagus."

Dr. L. H. Dunning, on "Uterine Colic."

Dr. A. W. Brayton, on "Transmission and Sinutation of Syphilis."

Dr. G.C. Smyth,on "Acute-Articular Rheumatism."

In all there were twenty-one papers, and they were uniformly good, the rule of the Indiana society being that no paper can be

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received except it be previously read before some county society and recommended by that body to the superior organization.

In this manner the programme is definite and well digested, and visitors to the State body are repaid for the time involved.

* * *

To the medical profession of Indianapolis belongs a large share of the credit for the success of the thirty-ninth annual meeting, but more particularly did doctors George J. Cook, Franklin Hays, Thos. B. Harvey, G.V. Woolen, W. J. Browning, Henry Jameson, A. W. Brayton, E. S. Elder, F. C. Ferguson, O. G. Pfaff, A. J. Thomas, J. L. Thompson, and his handsome son, Dan, one and all work unceasingly and successfully for the pleasure and profit of all.

* * *

But the great feature of the meeting was the banquet given to the state society by the Marion County Medical Society, which was indeed, a feast of reason and a flow of soul. Governor Porter and others pronounced it the greatest banquet in all that makes a banquet successful and enjoyable that they had ever had the pleasure of attending. There was no end of praise accorded by the guests to the Marion county society and to the committee on arrangements who had worked night and day for a week in making the necessary preparations. There was not a hitch in the programme nor an echo of disappointment, and it is conceded that the banquet has done more to develop the social nature and element in the profession than any other single incident in the history of the state society.

Dr. J. L. Thompson acted as Symposiarch and right royally he performed the service.

Mr. James Whitcomb Riley, the "Hoosier Poet" wrote an original verse to precede each sentiment upon the programme and they are one and all gems worthy of preservation.

After full justice had been done the menu the following was carried out in the order given:

TOASTS.

INVOCATION.

Symposiarch, J. L. Thompson, M.D., Indianapolis.
His every feature speaks his mental force:—
Jawed like a vice; a nose like any prow
Fronting the storm; such eyes as in their ire
Do seem to singe; and the high, vasty brow
O'ertopping all, a tow'ring bleak Mont Blanc
Of lordly indivuality.

Our Gests, Mayor Caleb S. Denny, Indianapolis.
Give me to claim the service meet
That makes each seat
A place of honor, and each guest
Loved as the rest.

The Indiana State Medical Society, President Samuel H. Charlton, M.D., Seymour, Indiana.
A learned body, sirs, and dignified
To no top-heaviness: It hath a pride
Trim balanced as a scale.

The American Doctor, William W. Dawson, M.D., President American Medical Association, Cincinnati, Ohio.
Just as he is the wide world through—
Your're killing him while he's curing you.

Medical Education in the West, Edwin R. Lewis, M.D. Crawfordsville, Indiana.
Intrepid and cool-nerved, of even brain,
Receptive of all nature's quick imprint;
Born of the West's expansive sea and plain—
Fitting the need; by Science welcomed.

The Law, Hon. Albert G. Porter, Indianapolis.
An' ilka quibble, quip, an' a'
Ye's ever heard in legal ha'
Druned over frae The Red-E'ed Law,
He cracks sae grim.

The Clergy, Rev. James McLeod, D.D., Indianapolis.
It is the Dominie, I wis,
Whose sagest saw forever is:
"Walk thou aright,
Both day and night."

The Doctor in Literature, James Newton Mathews, M.D. Mason, Illinois.
In lonely sessions of the night, when he
Kept watch and ward o'er the clenched eyes of me
The fever in my brain hath seemed to see
Him sitting thus, conspiring poetry.

"Doc Sifers," James Whitcomb Riley.
"For lucky rhymes to him were scrip and share,—
Nor could he understand how money breeds—
..... Yet himself could make
The thing that is not as the thing that is."—TENNYSON

The Doctor a Humanitarian, Lehman H. Dunning, M.D., South Bend, Indiana.
Kindly and warm and tender
He nestled each childish palm
So close in his own that his touch was a prayer,
And his voice a blessed psalm.

Our Preceptors, Isaac N. Love, M.D., St. Louis, Mo.
They taught us every gentler use
Of instrument and medicine,—
"And thus they bore, without abuse,
The grand old name of gentlemen."

The Doctor's Patients, Rev. Mathias L. Haines, D.D. Indianapolis.
O dear doctor! come and see
What on earth is the matter with me!
He felt my pulse, and he says, says he:
"Quiet—rest—and ginger tea!"

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ıe Doctor's Wife, J. McLean Moulder, M.D., Kokomo, Iana.

And thou shouldst paint her, as is meet;
Tracing the dear face o'er
With lilied patience meek and sweet
As mother Mary wore.

ı Medicine—"No North, No South," Joseph M. Mathews,).., Louisville, Kentucky.

No factionist is he, indeed,
Who ministers our pain—
Forever in such office we'd
Elect him to remain.

Young Physician, John Chase Sexton, M.D., Rush-e, Indiana.

Ay, tho he be a callow,
He's a worthy fellow—
Trust him—for he
Must needs trust thee.

he Press, Elijah W. Halford, Editor, Indianapolis.

While human heart shall pulse, no less
The echoing engine of the press.

ıe Microbe in Medicine, William T. Belfield, M. D., cago.

His skilled eye doth penetrate beyond
The commonality of ken, and threads
Minutest labyrinths of hidden lore.

he Hoosier Doctor, Abraham M. Owen, M. D., Evans-e, Indiana.

Doc hain't to blame! He's got all sorts
O' cur'ous notions, as
The feller says, his odd-come-shorts,
Like smart men mostly has!

The responses were almost uniformly crisp ght and ready as after-diner speeches)uld be and they all were meritoriously ef. The fact that a company of five hun-:d remained at table from nine o'clock P. until 3 A. M., was a tribute to the interest l full evidence of enjoyment.

To the committee having this in charge s. Cook, Hays, Wishard, Oliver and Still-ı, belongs the credit of furnishing the most oyable affair on record.

* * *

The meeting from the morning of the first y to the evening of the last day was a posi-e and pronounced success.

The profession of Indiana have agreed one l all to come to St. Louis to this year's eting of the Mississippi Valley Medical sociation, September 11, 12 and 13, "when ı frost is on the pumpkin and the corn is in shock."

* * *

Dr. Wm. T. Belfield of Chicago, whom we ve all known for years by reputation, was ıre and the won hosts of friends.

Dr. Jas. G. Hyndman of Cincinnati, one of the bright medical educators of his city, was also a visitor.

The untiring ubiquitous and faithful Kentucky trio, who come from families which seldom die and never resign, our own and only Dunley S. Renolds, Jos. M. Mathews and W. H. Wathen, were there of course, and it goes without saying that they made themselves felt.

CORRESPONDENCE.

ANASARCA SEROSA.

ST. LOUIS, June 12, 1888.

EDITOR REVIEW.—Anasarca serosa is a disease that follows parturition, though not invariably so; however, in that connection I shall speak of it in this communication.

Many of the diseases contracted by puerperal women are important only by being connected with that state, which often renders them of sufficient severity (when not so otherwise) to be a cause of danger to the woman. This is a disease, however, of more than ordinary importance, for, although it is not often dangerous to life, yet it is frequently, in its sequence, the source of great danger physically and constitutionally. The puerperal relation is one in which exists a predisposition to inflammatory disorders. And we might reasonably anticipate such to be the case when we take into consideration the condition in which the system is left after confinement. It has just passed through an ordeal in which the greatest excitement, both mental and physical, has prevailed, and which nothing else is so capable of producing. These effects last several days, and during that time the pulse is accelerated, the nervous system is actively susceptible to impressions. The blood is charged with fibrin "preternaturally coagulable," which some authorities have regarded as a cause of this susceptibility, but is, perhaps, better expressed by Leishman, who calls it "a peculiar constitutional sensitiveness."

Phlegmasia dolens (as it is familiarly

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known) is more strictly a disease of childbed than many others frequently found in connection with it. And in my own experience, of nearly half a century, I have not seen it except in such connection. It is a disease of many designations, and many of them expressive of the idea entertained by the writer of its pathological character. It has claimed the attention of writers since the time of Mauriceau, and has been the subject of many exhaustive treatises.

It consists of a swelling of one or both legs, which may occur simultaneously or successively. The limb is white, shining, and unlike ordinary edema does not pit on pressure, only when the inflammation and swelling are abating. This condition is caused perhaps by the fact that the exudation that has taken place in the leg contains an unusual amount of fibrin which fills the spaces in the cellular tissue sufficiently to prevent the pitting. And I am satisfied that it is the cause of the hard, unyielding feeling imparted to the hand when examining the affected parts.

Anasarca serosa usually appears within two weeks after confinement, although it may come later—in the third, or even the fourth week. The left leg is more often attacked than the right, which Dr. Ramsbotham thought to be caused by the different distribution of the right and left spermatic vein—the right terminating in the vena cava direct, and the left in the renal.

Personal observation leads me to think that this disease is as apt to attack primiparæ as pluriparæ, although many writers say that it does not often occur after first accouchments. They also contend that it is much more apt to attack persons who are weak, anemic, of lymphatic temperament, or after severe hemorrhages. This may be so in a majority of the cases, but I have seen it in robust, plethoric women, of sanguine temperament, and in those who had lost but little blood either before or after labor.

There are so many exceptions to these rules (if I may call them rules) that they amount to nothing in the symptomatology of the disease.

Women who have been attacked with anasarca serosa are as liable to future attacks as though they had not been affected; one is no security against another. But when attacked a second time they generally suffer less than with the primary affection.

Whether it is caused by the retention of matters that should have been expelled with the lochia, by mild metastasis, by obstruction of the lymphatic vessels and glands of the affected parts, by rupture of the lymphatic vessels as they crop the brim of the pelvis under Poupart's ligament, by inflammation of all the textures of the diseased limb—Dr. Hull's capacious theory—by inflammation and obliteration of the crural veins, or simply inflammation of the lymphatic glands—some of the theories advanced at different times, I shall not attempt to decide. Up to the present time no acceptable theory has been advanced, and doubts and obscurities still hang about the cause of the disease. Yet, we have obtained some knowledge of the pathological condition of the parts involved. In nearly all the postmortem examinations reported of persons who have died of anasarca serosa, the veins have been found plugged with coagulum, and their coats more or less inflamed. The lymphatic vessels and glands were also found obstructed and inflamed, but whether these conditions were primary or secondary are yet to be determined. The most reliable authors, however, believes that it originates from the absorption of septic matter, which, entering the circulation, is the cause of the blood coagulating so readily. But thrombosis does not cause phlebitis ordinarily, yet phlebitis does cause thrombosis invariably. And we find both these conditions in this affection. So we must conclude that we are yet to learn the cause of anasarca serosa.

I was called on the 18th day of March to see a woman, thirty years old, who had been confined ten days previous to my visit. She had been in good health, and had suffered but little from her condition up to the time of her delivery, except that she was inconvenienced by edema which prevented her from taking much exercise. Her labor had

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been easy—no abnormality about it that I could learn of, whatever. She had suffered with headache, almost continually since that event, and it was very severe, particularly at night. I found her with high fever which she had had from the previous day, and that it had been preceded by a chill and severe pain in the calf of the right leg. Her temperature was 105.5°, pulse 126, full and strong. Her leg was swollen from above the knee downward, involving all the limb below the point designated. Severe pain and tenderness was felt over the swollen parts, more intense in the calf of the leg, where the pain originated. The swelling already presented the white, polished appearance so characteristic of this affection. There was no pain or soreness about the womb, or in any of the regions of the abdomen. The veins (saphena, and some of the superficial ones) felt hard, and rolled under the finger, and were very painful when pressed upon. This condition, however, terminated above the swelling, did not to any conceivable extent involve the veins in the upper portion of the thigh. The lymphatic glands in the inguinal region were slightly swollen and sensitive. The urine was highly colored and contained albumen. The lochial discharge had been suppressed for several days, aed the milk partially so at the time of my visit.

As she had on the previous night taken a dose of castor oil I did not administer a purgative, but put her at once on veratrum vir. (five drops) every two hours, and had the leg swathed with flannels which had been dipped in warm carbolized water and in which hops had been steeped. This application gave great relief to the pain. I also directed injections per vaginam every three hours, of warm water containing an antiseptic. Visited her again in eight hours, found the veratrum had acted well (temp. 102°, pulse 110 soft), and that she was perspiring. Stopped the verat. vir, and gave one grain calomel triturate every three hours, with syrup Dover's powders. The patient rested well until three o'clock, A. M., when she had a rise of fever, and also an increase of pain in the leg.

March 19th. I found her at nine o'clock restless and suffering. Temperature, 104°, pulse, 120. Gave her hypodermic injection morphia and atropia, which procurred her three hours rest. I then gave her ten grain doses of antipyrine every three hours and continued the swathing and injections. The swelling had extended farther up the leg, but not with the rapidity that it usually does in such cases. 8 o'clock P. M., she was comfortable, comparatively. The calomel had produced two copious bilious actions from her bowels, and the antipyrin had controlled the fever to a great extent. Temperature, 100°, pulse 104. Gave anodynes, and kept up the local applications with the addition of tinct. opium sprinkled over the cloths after being dipped in the water and before applied.

March 20th. The fever this morning was higher than on the previous evening; temperature 102°, pulse 108. The swelling had continued to extend itself up the limb, the veins felt like cords under the finger, and the sophena was so to near its junctions with the femoral. She could exercise no control over the leg whatever. The surface was less painful to the touch, but the pain was agonizing when an attempt was made to move the limb. Placed her again on antipyrin and kept cloths applied to the leg wet with solution of listerine. Continued injections but less frequently every five hours. 8 o'clock A. M., condition about the same as the night before. The leg was, however, becoming less sensitive and the swelling extending. Again had recourse to anodynes, and kept up the same local treatment.

March 21st. There had been no increase of the fever during the night; temperature, 100.5°, pulse 104. Gave to-day small doses calomel with Dover's powders, every three hours; continued same local treatment. 8:30 P. M., condition about the same. I directed that her leg be well rubbed (as she could now bear the rubbing) with equal parts tinct. camphor and spirits turpentine, and afterwards a poultice of flaxseed meal be applied to it, rendered antiseptic and kept so during the night by the frequent use of a solution of

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listerine poured upon the poultice. As the bowels had not yet acted, continued calomel and Dover's powders.

March 22. Her bowels had moved, her fever gone; temperature, 98.5°, pulse 86. Said she felt much better, and only complained of the leg when it had to be moved. Put her on quinine, and gave also a diuretic, as the kidneys showed some disposition to sluggishness. Made local applications of flannels kept moist with the camphor and turpentine mixture.

March 23. Had slept during the night and was feeling improved from it. The leg was now enormously swollen from the toes to the hip, was tense, hard, shining, and felt as she expressed it, "like a dead weight attached to her body." The leg now seemed to possess very little sensibility, and she only complained of it when it was roughly handled. There was some little lochial discharge present, but her milk was entirely suppressed. No fever; continued quinine and diuretic, and ordered beef soup, eggs or milk, as preferred, to be taken with the light farinaceous diet previously allowed. And here I will remark that in my experience, when much fever exists, no matter what may be the demand for nourishment, the diet should be of a light farinaceous character, and should be taken with malt extract; it is then assimilated. But if nitrogenous food be allowed, it is not digested, and almost invariably increases the fever. Two days later I discovered that the swelling was slightly diminishing and softening, and about the ankle disposed to pit on pressure. Her appetite was improving. I now gave her a tonic mixture, and allowed additional nourishment, and kept up the stimulating embrocation to the limb. Two days afterwards the swelling continued to gradually subside. The ankle was becoming edematous, and I thought in a proper condition to commence with the bandage, which I applied from the toes to the hip. After that a laced bandage was procured, and the nurse directed how to apply it. The milk returned after a few more days. The secretions were all established. The swelling subsided very slowly, and eighteen or twenty days intervened before she gained any control over her limb. Her recovery was uninterrupted and at the present writing she is quite well. Yet, there is a slight stiffness in the limb, which is some impediment to locomotion, for which I have been using, with good effect, a light Faradic current.

This case is of interest from the facts that it occurred in a strong, healthy woman of vigorous constitution, and after an easy labor, unattended by any unusual hemorrhage, and after her first child. There were none of the conditions present such as anemic debility, struma, or in fact any other, thought to favor the development of the disease. It occurred in the right leg instead of the left, appeared first in the calf of the leg, and not in the pelvic or inguinal regions, as we are taught to expect. There was no soreness or even tenderness about the womb or its appendages at any time during her sickness. And although a well-marked case of much severity was quickly relieved by the treatment, an important part of which I attribute to the liberal use of antiseptics, which were used, not alone locally, but freely in the room and about its attachments.

J. J. Jones, M. D.
3511 North Market Street.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday May 26, 1888. The Vice President, W. Coles M. D., in the chair; J. B. Prichard, M. D., Secretary.

Dr. Laidley.—At a previous meeting of the society I gave the history of the case from which the specimen was taken. I wish now to state what I think was the probable cause of the recurrence of this disease It will be remembered in the history that some three or four months before I saw the case, it had been roughly manipulated by a magnetic physician, and a fistulous opening was made into the vaginal tract posterior to the neck of the uterus. "May we not con-

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clude if it is true, as Tait and Bantock claim, that tapping hastens degeneration, and after an accidental rupture of such a cyst the peritoneum will be found with patches of papillary cancer (hence they argne that ovarian tumors should never be tapped; and that they should be removed in their earliest stages before any mrlignant transformations have taken place,) that had this tumor been removed entire at the time it was injured, there would be no question that it would not return."

After removing the original tumor, the fistulous opening into the vagina closed, or at any rate I was unable to pass a probe into it as I had done previous to the operation.

The patient passed from under my observation. I learn that some six weeks or two months before her death she had a hemiplegia. A short time before her death she suffered from a large amount of hemorrhage, and from a discharge which appeared very similar to that which preceded the operation that I made six months before.

The patient died four weeks ago. A post-mortem was made twenty-four hours after death, by Dr. McCandless, who kindly gave me this specimen. The abdominal organs alone were examined, the liver and kidneys were normal, adhesions existed between the peritoneum and omentum over the entire anterior surface of the peritoneum. In the right iliac region the bowels and omentum were fastened down to this mass which had formed immediately over the site of the stump which was made in the removal of the original tumor. The adhesions were broken up and the tissue of the right floor of the pelvis removed, the uterus and upper portion of the vagina was also removed, and with them came two ligatures which I have here, showing that one of them had been encysted while the other was encased in a cavity which had been created by this degenerative process, a breaking down which made the cavity about eleven centimeters in diameter. This mass proves to be a malignant growth. The fistulous opening which was discovered prior to the operation was very much enlarged, the tissue surrounding it having undergone rapid change. Two or three fingers were readily passed through the opening posterior to the uterus, into the vagina.

The specimen has been examined by Dr. Babcock, under the microscope, and he reports that it is a large oval and round cell sarcoma, the uterine tumors are quite small, and are submucous and interstitial fibroids. I think, from the literature upon this subject, that had the patient been operated upon skilfully at the time the magnetic manipulations were performed, the probabilities are that she would not have had a recurrence. Another point which was brought out by Dr. Alt, whether or not the traumatism of the operation had anything to do with the form of the recurring tumor. I would like to hear this question discussed.

Dr. J. L. Babcock.—It seems to me from an examination of the tumor, that one of the morbid elements in the case after the operation was performed, consisted in the existence of this sinus. Now the history of the case, as we all know is this, the woman had what appeared to be an ordinary cystic tumor, this magnetic physician, so-called, manipulated the patient until he cured her as he stated, (and he actually obtained a sworn certificate from the husband to that effect.) This cure consisted in forming this sinus, which was produced by a rupture of the cyst into the vagina. This sinus continued to discharge purulent material up to the time of the operation; and when the tumor was removed this discharge of pus and blood continued. Now, the tumor, as it appeared when Dr. Laidley gave it to me for examination, was of a cystic nature; grouped around the upper and right hand end of the cyst, and at the side of this tumor was the stump, with the sutures in situ, from which the original tumor was removed. The continual discharge of pus and blood, in some mysterious way which I believe is not understood by any pathologist, caused the growth to take on this sarcomatous nature. The existence of the sinus and the consequent discharge was doubtless the cause which led to the growth of this sec-

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ondary sarcomatous tumor, and this magnetic physician no doubt still has the sworn certificate that he cured the case.

Dr. F. J. Lutz.—I have here a specimen which I take from a microscopic examination and from its history, to be a fibroid of the uterus. I first saw the patient, from whom it was removed, two years ago. the occasion of the examination being a very severe hemorrhage from the vagina. The patient was 42 years of age, had never had a hemorrhage before and had enjoyed unusually good health. Her menses up to that time had been regular. About fifteen years before—seventeen years ago—she had given birth, and had never been pregnant since, that being her first and only pregnancy.

An examination revealed a very large tumor protruding into the vagina, and a considerable diminution of the lumen of the cavity. It was impossible at that time for me either to feel the os uteri or to bring it into view by means of Sims's speculum. I was assisted in the procedure by my neighbor, Dr. Stoffel, and neither of us could feel or see the os uteri. We found on the left side of the vagina an immense canal, which held so much iodoform gauze that I was afraid I wastamponing the abdomen instead of the vagina. I succeeded, however, at that time in arresting the hemorrhage by means of the tampon. I administered ergot, and treated the symptoms as they presented themselves. After that she had, perhaps, a half dozen quite severe hemorrhages and some other less severe ones at intervals.

Whilst the patient's general condition did not improve as I would have liked it to, yet her condition was bearable. The tumor itself was apparently moveable, but seemed to fill the entire vagina, and extended upwards almost to the umbilicus. During the two years since I first saw it, it seems to have grown very little. The woman was quite anxious to have it removed by operative procedure, but I argued against it, and persuaded her to have nothing done for the reason that her general condition was good and the menopause was near, so I thought it was one of those cases in which we ought to wait. The tumor was such that I felt it would be very difficult to remove, if it were possible at all. The patient died of another affection, what is called typhoid pneumonia, and her death had nothing to do with the tumor.

During the past six or eight months the hemorrhages have amounted to very little. At the post-mortem I removed, as you see here, a very large fibroid, which occupied the entire pelvic space, being, in fact, extra-peritoneal. No adhesions had ever taken place, it never broke the peritoneal surface. The only adhesion to the omentum was on the right side of the tumor. The growth had pushed up the intestines as we would expect, a portion of the transverse colon being immediately above it on the left side, the rectum which is visible in the specimen was greatly pressed. The specimen can best be understood by examining it.

While the gentlemen are examining the specimens, I will ask them to look at the specimen of strangulation of the intestine which I have here. The history, briefly stated is as follows:

The boy, from whom this was taken, was under the care of Dr. Finley and Dr. Stoffel. He was taken with a sudden pain in his abdomen, soon followed by prostration and vomiting, which persisted, yielding to no kind of treatment, and finally became stercoraceous. The abdomen, after two days, became meteoric, and he suffered from constant constipation. From the very beginning strangulation of the intestine was diagnosticated, and anoperation suggested, which was very persistently refused by the patient or his relatives, he being a young man about 19 or 20 years of age, and he died on the seventh day.

An autopsy revealed the constriction of the bowel to be due to a band which in my judgement came from the diverticulum of Meckel. You remember that the diverticulum is the remnant of the vitelline duct, presenting all the characteristics of the intestine itself, and when long, the diverticulum is often the cause of intestinal strangulation, the free end causing adhesions of a

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coil of intestine to the mesentery or abdominal wall, and in this way a coil of intestine may be strangulated. In this case the band seems to pass from the diverticulum and pass around the coil of intestine, becoming connected on the other side with the mesentery, constricting very completely the intestines, although the band is as thin, I dare say, as a number nine cat gut, perhaps a little less than that. I believe that beyond all question laparotomy would have been a means of relieving the strangulation.

Dr. Meisenbach.—In reference to the case of strangulated intestine, the thought has occurred to me that filling the bowel with hydrogen gas might be an efficient means of overcoming a strangulation of the gut. Whenever an obstruction of the intestinal tract produced by causes not referable to external violence, in which there is no perforation of the abdominal cavity this agent might be used with advantage. In the experiments which we made we found that the hydrogen gas premeates the tracts very insidiously, and it can be forced through the entire tract without injury to the patient, In these cases of strangulation the adhesions which occur at first can not be very strong, and its seems to me in the first stages of a strangulation, the binding down or agglutination of the intestine in many of these cases is not complete.

Dr. Laidley.—I will say that I commend Dr. Lutz's conservatism in the case of tumor which he reported. The time has come when it is no longer proper to resort to an operation in every case of fibroid tumor. Formerly it was the first thing that was suggested on meeting with a case of this kind, but now we know that these tumors may often be removed without operation, by galvanism properly applied. Within the last twelve months I have met with two cases in my own experience which demonstrated this fact. Two tumors as large as the one which has been presented by Dr. Lutz were removed by this method. The tumors were so large that they caused great inconvenience, and in fact the patients were unable to get about at the time the treatment was begun.

Dr. Lutz.—If there is no further discussion of these specimens I would ask the indulgence of the society for a minute while I revert to the experiments which Dr. Meisenbach and myself made before the society on last Saturday. I will say that during the week I succeeded most admirably in overcoming the difficulty of passing the hydrogen gas through the entire testinal tract. You will remember there was some difficulty in demonstrating that on last Saturday night. This was due to the fact that too much gas escaped through the rectum. We have obviated that by the use of a large cone plug which completely blocks the rectum. By the use of this plug it required but a small amount of gas, and the experiment is performed with great certainty every time. You will will remember that we used a glass tube and tried to plug the rectum by means of cotton which was not a complete success. This rectum plug now does the work very successfully. We have succeeded during the week in securing a passage of gas through the entire intestinal tract. Then it may be of interest to the gentlemen who witnessed the experiments and who are interested in this subject to learn that Dr. Senn in a private communication to me during the week, tells me that during his absence in Cincinnati, his assistants made use of the expedient with perfect success in a case of gun-shot wound of the abdomen, and that the case will be published in the *Med. News*, demonstrating the value of this method on the human subject. I am sure we will all look forward to readlng this report with a great deal of interest.

Dr. J. A. Hornsby read a paper on "The City's Water Service, Present and future."

Dr. Coles.—I would like to ask the doctor lf he has any idea of the quantity of water furnished by the Black and Burbois rivers which come in lower down?

Dr. Hornsby.—Yes sir. The spring itself supplies, according to the estimate of the United Stated government, about one hundred cubic feet per second. The Black or Dry Fork as it is called, I think has a capacity of 216 cubic feet per second or thereabouts, the

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Water Fork or Burbois has a capacity of 600 cubic feet per second. These two streams come in below the point I have spoken of and will protect the reparian rights of the people along the course of the river even to the mouth.

Dr. Coles.—How far is the spring from St. Louis.

Dr. Hornsby.—One hundred miles.

Dr. Frank Glasgow.—It is four hundred and some odd feet above the city directrix?

Dr. Hornsby.—It is 370 feet above the city directrix?

Dr. Coles.—For my part I would like to see the paper published in the daily prints. It is very important paper. I feel particularly interested in it. I have been at the Meramec spring, and I have since thought it was possible for St. Louis to get its water supply from that source.

Dr. Dudley.—Has a chemical analysis of the water near the city been made?

Dr. Hornsby.—In 1875 Dr. Dean made an examination of it and found it to be impure. I have forgotten the analysis.

Dr. Love.—The question of the water supply of large cities is a matter that is going to be of interest for years to come. I saw in one of my exchange journals that came today, I think it was the *New York Med. Rec.*, a statement that the king of the Belgians had offered a prize of many thousand florins, for the best essay of the subject. This simply illustrates the interest that is being taken in the subject. I remember a discussion that I heard some ten years ago at a meeting of the American Public Health Association at Nashville. Prof. Gearge E. Warren, the greatest of civil and sanitary engineers of America, discussed this matter very intelligently, and I remember that he stated that the Mississippi river was so rapid that no matter how large St. Louis became, even though it was as large as London, her sewage would be thoroughly and perfectly removed. The suggestion for the securing of a pure supply of water made by the essayist, in his most interesting and well presented paper, is certainly a good one, if it is feasible. But 27 million dollars is a pretty large sum, and the question presents itself to my mind whether a better solution of the problem is not the one that has come up a number of times in discussions which I have read, and which I believe has been adopted by the City of London, which is economical, which removes from the sewage of the city all the solids utilizing the same as a fertilizer. This is done in many foreign cities, and it is doubly economical. It is done in Pullman, Illinois. I think there are many reasons why this idea of purifying, solidifying and taking up in an economical way the solid and filthy matter of the sewage of cities, should be adopted. Then our water supply will be pure for the reason that the materials which are polluting it are turned in other and different directions. Now, I remember some years ago speaking of this Meramec scheme. I heard the matter of the St. Louis water supply discussed some years ago, and I remember when the present plan was adopted, of using the Mississippi river water, one of our public-spirited, energetic and able men, Rev. Dr. Elliott, who was always to the front, became interested in securing for St. Louis a water-supply from the Meramec river. I understand his pet project was to secure the water supply from the Meramec river, and he brought before the commission samples of Meramec river water and compared it with the water from the Mississippi and Missouri rivers, and it compared very favorably and looked very beautiful and attractive, but some who were present, I think it was the City engineer suggested a plan by which he could demonstrate the superiority of the Mississippi and Missouri river over that of the Meramec. He took the waters and enclosed them in glass jars and covered them with blotting paper, and suggested that they be left one week, at the end of which time the Mississippi and Missouri river waters were quite sweet, whereas the other had undergone a change and smelt bad. The Mississippi and Missouri river waters were kept sweet by the clay in them. Of course, this was water taken from the Meramec and not from the springs, from

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which Dr. Hornsby proposes to get his supply. I think the suggestion of the doctor is most admirable, and if the pollution of the Missouri and Mississippi can not be prevented in the manner suggested, then I would certainly be in favor of his scheme, even though it cost it cost twice twenty-seven million dollars. Of course we may go a few miles up the river for our supply, but we have no means of knowing how large these towns above will become in a few years. I take it this is a very serious problem. One of two things should be done, either the plan of utilizing the sewage as a fertilizer should be considered, or else the plan suggested by Dr. Hornsby should receive attention. The paper is in every way an interesting one, and I hope it will be discussed by the public and by the powers that be. I certainly think it is a matter of vital import. We know that cholera and typhoid fever germs,as the doctor has well stated, are not destroyed by dilution, and a germ may come through your hydrant and strike you when you are susceptible, and although it may have been largely diluted it may not have been destroyed.

Dr. Frank Glasgow.—I believe that Dr. Hornsby has brought up arguments that have been used not by scientific engineers, but by men who know very little on the subject in regard to the pollution of water, and that have been used by the public papers merely for the purpose of swaying public opinion.

That there is any possibility of the sewage of Chicago polluting the water on this side of the Mississippi River, I think hardly any reasonable being would believe. There is not only the Mississippi between us and the Illinois shore, but the Missouri also, and anyone who will take the trouble to look at these two rivers, even as far south as the bridge here can see the dividing line between the Mississippi and Missouri River water. The two are perfectly distinct. How any of the Mississippi River water can get on this side is a mystery to me. We have no large cities on the south bank of he Missouri River, so that we will have absolutely no sewage pollution at the water works except what comes from this city itself. Now in regard to the mud which is in suspension in the Mississippi River water. We all know that vessels at New Orleans or in the Gulf prefer the Mississippi River water to any clear water they can obtain. I have been told by seamen that not only do outgoing vessels take this water, but that where the outgoing vessel have had no opportunity to take a supply, they take it from incoming vessels in preference to other water. Those who have traveled much and noticed the water in different cities, can well appreciate the water which we have here. The water of most cities is clear, but in comparatively few is it drinkable. I have been to a great many, and I can testify to the villainous water which is found at most of them. The only real good clear water I know of is at Vienna, and there it is brought from springs such as Dr. Hornsby speaks of. Of course nothing can be urged against the Meramec Springs except the difficulty in getting the water here, the expense and the limited quantity of water. Sixty million gallons would be a very small quantity for St. Louis twenty or thirty years hence, than we would have to go back to the old Mississippi. I think at present we do not appreciate the water we get here. As to the objection that the settling reservoirs are not cleansed, more basins could be constructed, and thus allow of their being frequently cleansed, so as to prevent the putrefaction of the sediment, and it would not cost twenty-seven million dollars either.

Dr. Hornsby.—I will only say a few words in reply. So far as the remarks of Dr. Glasgow are concerned, I will say that St. Louis is not likely to go to sea just now, and I do not think there is anything for us in the point about the vessels preferring the Mississippi River water. Dr. Love's suggestion as to the disposition of the sewage is very well for a city like London where there are three millions of people, or in Berlin which is almost as large, and Pullman, Ill., which is a private corporation, but I think it is impracticable in western cities, it will not be applicable to this country until the popu-

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lation has become dense, when the Federal Government may take hold of the matter. I do not think the doctor's point would be good at a more proximate period than two or there hundred years from now.

BOOK REVIEWS.

THE SURGICAL DISEASES OF THE GENITO-URINARY ORGANS, INCLUDING SYPHILIS. By E. L. Keyes, A. M., M. D. D. Appleton & Co., 1888.

In this valuable work Dr. Keyes has furnished a textbook to which, in American literature on this subject, only its predecessor, a book of the same title by Van Buren and Keyes can be compared. Notwithstanding the fact that it had not been revised since 1874, the older work was still held in high estimation by those acquainted with the contents. This alone bespeaks the favor with which the present revised and—with the exception of one chapter—wholly rewritten edition will be received. The paper and type, in keeping with the custom of its publishers, are of the best.

In discussing the etiology of urethral (urine) fever, the author gives expression to views from which Reginald Harrison has differed in a recent Lettsomian lecture on that subject. Dr. Keyes does not believe that the simple aborption by an abraded surface is sufficient to account for all cases of urine fever. He attributes to shock and to reflex action, a considerable influence in its production, and supports his position by the assertion that the chill may come on before the perfectly smooth and clean sound has been withdrawn from the urethra, precluding the possibility of its being the effect of urine absorption in such a case. In its treatment, both prophylactic and curative he relies, not on quinine or local anesthesia, but on the hypodermic administration of pilocarpine and morphia. As to the gonococcus, the author has this to say: "I have frequently examined urethra discharge and intensely purulent ones at that, and, failing to find the gonococcus, have pronounced the source of alleged contagion to be non virulent, and the patient to possess a discharge which he could not communicate to another and have not yet been proved to be wrong. * * * I have never examined a thick purulent discharge which I believed for other reasons to be virulent without finding it loaded with gonococci, and my belief is that this organism is the contagious element in the discharge. * * * A discharge containing gonococci, however, is not necessarily contagious in a virulent way." On the subject of injuries to the urethra where there is retention following such a condition, he advocates the employment, first of a soft catheter, failing in this a filiform bougie may be tried, and, finally, if the bladder cannot be reached by any such means, perineal section may be resorted to. This plan is probably more "conservative" (in the accepted meaning of the term) than that adopted by most leading surgeons of the present time. With them such positive indications for perineal section are not awaited, and the incision is made when a urethral rupture is demonstrated by hematoma or otherwise. Such a procedure secures for the organ physiological rest, greatly lessening irritation and thereby limiting the amount of stricture-forming products.

The author appears to have made but little use of the endoscope, and merely describes its employment without comment from personal experience.

For two reasons he deprecates the use of soft woven bougie guides which are screwed on to the ends of metal instruments, urethrotomes, etc. The metal cap may become loosened leaving the guide in the bladder, and there is danger of the guide becoming doubled on itself, deluding the surgeon into the belief that he is following the right direction, when, in reality, a perforation of the urethral wall is imminent. He takes issue with the view that all points of physiological narrowing—strictures of large calibre, so-called—should be cut, and believes that such action should be taken only when the points spoken of are the cause of existing symptoms, or when there is some obscure trouble

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f the deep urethra or bladder, the origin of hich cannot be ascertained.

The author dare not accord to supra pubic thotomy the unqualified indorsement that it is applicable to all cases, young or old, to ll stones,great or small,"—a position claimed or it by some enthusiastic advocates. But e does advise its performance in all cases in hich lithilopaxy will not answer—that is, it s adapted to the removal of large stones hich have two diameters greater than one nch, encysted stones, stones complicating tu-ors and foreign bodies. A method of drain-ge of the bladder after the operation which he author has devised, effectually dissipates ll fears of subsequent hemorrhage which so requently occurs when drainage is effected hrough the perineum. For the radical cure f hydrocele, the method of Dr. R. J. Levis, f Philadelphia, of injecting pure carbolic cid into the sac is strongly praised, and is iven reference over all other measures. The later ideas of treating chancroid are dis-ussed in an interesting and instructive chap-er, keeping pace with the advance shown in he rest of the work.

The apparent exceptions to Hunter's rule hat a syphilitic person is not capable of be-ng re-inoculated, he likens to the fact that luring the incubation period of vaccinia, re-noculations may be repeatedly made with uccess up to the time when the first sore is airly well developed, but after that, the pro-ecting power of the first inoculation shows itself in the failure, met with on further at-empting re-inoculation. All apparent suc-esses after this time are due, not to the spe-ific contagium of the virus, but to some irri-tant contained in the material causing sup-purating in the form of a simple pustule. He herefore believes this: That re-inoculations f syphilitic virus upon patients already yphilitic, produce no result, exceptios occur when sometimes before the system has be-ome saturated with the syphilitic poison, the hancre being very young, auto- or hetro-in-oculation may prove successful. This belief does not necessarily admit the possibility of preventing the systemic infection by early excision of the initial lesion, it will be ob-ferved. Though the poison is not diffused and developed sufficiently to resist further lo-cal excitations,, still the disease is there and is constitutional, a sort of fermentation is go-ing on, the strength of the poison is becoming augmented daily, and finally reaches a point at which it is able to prevent local effects of newly applied virus.

Notwithstanding the support that Hutchin-son, Fournier and other high authorities give it, Dr. Keyes is skeptical regarding the truth of the theory of infection by *choc-en-retour*— the infection of the child through the semen of the father while the mother remains unin-fected, although at the same time, she is pro-tected from further danger of acquiring the disease. He believes that in such cases the mother has been infected, but primary and secondary evidences have remained undis-covered.

Under the heading treatment, the author gives his views, based on personal observa-tion of the value and applicabality of the wa-ters of Hot Springs, Ark., in syphilis. He is positive in the assertion that the special ad-vantage derived from their use is that they so influence the patient that he is capable of digesting and absorbing large quantities of mercury or iodide of potassium, without causing derangement of the alimentary or other functions, whereas, at home without their beneficial supervision, to patient's spe-cific cachexia or debility is increased by the ill effects of intolerance of such medication. Such patient who for some cause, are unable to get a sufficient quantity of the medicine in-to their system to resist the inroads of the disease—and only such—he recommends to go to Hot Springs. Only in exceptional cases does he use the subcutaneous method of administering mercury. The practice is condemned in the ordinary run of cases, on account of its proneness to abscess or inflam-atory lumps.

It is with pleasure that we greet the revised edition of Van Buren and Keyes.

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SELECTIONS.

THE TREATMENT OF THE AFRER-BIRTH IN NORMAL LABORS.

Crede, of Leipsig, in the *Archiv f. Gynakologie*, band 32, heft 1, writes in answer to a discussion upon his method of treating the third stage of labor, which occurred at the Wiesbaden Congress of last year, and in which varied criticisms and modifications were suggested.

He reminds his readers that when he first advocated the method which commonly bears his name there were but two procedures in vogue, that which consisted in removing the placenta with the hand, or an instrument introduced from without, and the expectant plan, which relied upon Nature entirly. He comments upon the mistatements of his method which have been made, and considers the term "external method" as its most appropriate designation.

The most decided criticism made against Crede's exposition of his method is that he does not define clearly enough the time at which the placenta is to be delivered. He considers that the choice of the time for employing his treatment depends upon one of the three indications for terminating labor, which are as follows; terminating a dangerous condition already established; the prevention of accident; saving of time. Regarding the first there can be no question, the patient must be rescued from her peril at once by bringing labor to a close. Regarding the second, Crede's experience has led him to believe that in the majority of normal labors, when the uterus contracts well, and responds to massage promptly, that three or four after-pains suffice to expel the placenta in from fifteen to thirty minutes after the birth of the child. He does not, however, advise that labor be ended invariably in this time; he recognizes the fact that many circumstances may render the exercise of a more expectant course of action necessary. The saving of time and suffering he thinks well worthy of serious consideration, from the interests of attendants and patient alike, especially since the method of treatment advised exposes the patient to no added danger.

He replies to the objection that greater loss of blood results from his treatment by stating that the loss of blood in a labor depends upon so many factors that it would be difficult to assert that any one is solely the cause; he is positive that the loss is not increased, but is his experience diminished by his delivery of the placenta.

He also thinks that the retention of chorion and decidua is not more frequent among patients so treated. it occurs with about equal frequency with various methods of treating the third stage of labor. In four and one-fourth years he has treated 4969 patients in the Leipzig clinic without a case of retention, death, or serious complications which could be ascribed to this treatment. The cause of puerperal accidents he believes to be the meddlesome practice of the accoucheur; for fragments of placenta and membranes, when left to nature and without infection conveyed by instruments, Crede believes to be innocuous. Auto-infection in such a case he considers impossible; the infecting material must come from without, and be absorbed by a recent wound, or an old wound recently freshened.

To the criticism that uterine massage or "rubbing of the uterus," is unnecessary and dangerous, Crede replies that he does not advocate violence, but gentle, patient massage and stroking of the uterus, which when done by a practised hand cannot do harm. This method is not difficult to acquire, but is not a trivial procedure, or one to be performed without care and skill. A student should learn first to stroke gently the entire anterior surface of the uterus, then to straighten the uterus, and place it so that its direction (or axis) corresponds with that of the sacrum and coccyx, and, finally, he should add pressure exerted upon the uterus. The last is intermitted during uterine contractions. It is usual in patients so treated to find the placenta lying in the vagina after a short time.

A substitute proposed for this treatment is pressure by the abdominal muscles, which

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idently is poor reliance in a condition where e tissues have been distended and weakened, id where the mother's strength is nearly ent by her labor. To the proposals to rub massage the inferior segment only of the erus, and also to push it upward above the pposed site of the placenta, Crede replies at the most efficient muscle of the uterus is the superior and not in the inferior segment, id hence the part most powerful to contract ould be stimulated: if the uterus be strongly shed up immediately after delivery, a lacer- ion of the cervix may be made larger; it is necessary strongly to raise the uterus, for imulation of any portion of the uterine uscle will result in the contraction of the hole. He does not believe that the placenta separated by the formation of a blood-clot tween the placenta and the uterine wall, it believes that the uterus expels the pla- nta by its contractions, as it does the child. Crede feels justified in concluding that the ethod which he originated is correct in prin- ple, and is without objection. He has no ason as yet to alter his method; the im- ovements suggested by others are already ssessed by his treatment, or they are unim- rtant. He believes that no occasion has en shown for adopting any of the modifi- tions proposed.—*Jour. Med. Sciences.*

EATMENT OF PULMONARY CONSUMP- TION BY RESIDENCE IN HIGH LATI- TUDES

Dr. C. Theodore Williams gave (*Brit. Med. ur.*) tabulated statistics of one hundred and ty-one cases of phthisis treated in sanitaria ying in altitude from five thousand to nine usand feet, in the Alps, the Rocky Moun- ns, and the South African Highlands, dur- the past nine years. From these statistics drew the following conclusions:

1. That prolonged residence at high alti- les produced great improvement in the ma- ity of consumptive patients, and complete est of the disease in a considerable propor- n, such arrest being in a more or less de- e permanent. 2. That in order to secure these advantages, patients must be free from pyrexia and all acute symptoms, and must possess sufficient lung surface to adequately carry on the process of respiration in the rarefied atmosphere. 3. That the influence of the climate seemed to promote a change in the lungs, either of a curative or destructive character, and to oppose quiesence. 4. That residence at high altitudes caused enlargement of the thorax, hypertrophy of the healthy lung-tissue, and the development of pulmonary emphysema around the tubercular lesions, and that this expansion of the chest was accompanied by dimunition of the pulse and respiration rate. 5. That it was probable that the arrest of consumptive disease was partly owing to the pressure exercised on the tubercular masses by the increasing bulk of the surrounding tissue. 6. That the above local changes were accompanied by general improvement, shown in the cessation of all symptoms and the gain of weight, color, and of muscular, respiratory, and circulatory power. 7. That consumptives of both sexes benfited equally by mountain residence, but that the age of the patient exercised considerable influence on the result. 8. That the high altitude treeatment seemed to be specially adapted in cases where heredity and family predisposition were present. 9. That the climate was useful in cases of hemorrhagic phthisis, and that hemoptysis was of rare occurrence at the mountain stations. 10. That mountain climates were most effective in arresting phthisis when the disease was of recent date, but they were also beneficial in cases of longer standing. 11. That the special effects of high altitude residence on the healthy and sick were common to all mountain ranges of elevations of from 5,000 feet and upwards. 12. That to ensure the full advantages of high altitude residence, a period of at least six months was necessary in the majority of consumptives. In cases of long standing and of extensive lesions, one or two years were often requisite to produce arrest of the disease. 13. That, in addition to the above examples, mountain climates were beneficial in 1, cases of imperfect thoracic and

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pulmonary development; 2, in chronic pneumonia without bronchiectasis; 3, chronic pleurisy where the lung did not expand after removal of the fluid; 4, spasmodic asthma without much emphysema; and 5, in anemia. 14. That they were contra-indicated in the following conditions: 1. Phthisis with double cavities, with or without pyrexia; 2, cases of phthisis where the pulmonary area at low levels hardly sufficed for respiratory purposes; 3, catarrhal phthisis; 4, erethric phthisis, or phthisis where there was great irritability of the nervous system; 5, emphysema; 6, chroic bronchitis and bronchiectasis; 7, diseases of the heart and greater vessels; 8, affections of the brain and spinal cord, and conditions of hypersensibility of the nervous system; and 9, where she patients were of advanced age, and where they were too feeble to take exercise.

ON THE DIAGNOSIS AND THERAPY OF ROUND ULCER OF THE STOMACH.

Gerhardt (*Muenchener Med. Wochensch.*, 1888, 239) says: Injuries of the gastric mucous membrane heal rapidly. Round ulcer is a chronic ulcer, whose chief characteristic is its persistency, and there must, therefore, be some other cause for this persistency besides the loss of substance. This is usually sought in an excessive gastric secretion, or in the action of injurious food or medicines, and where these are the agents, certain microorganisms are perhaps at fault. It is a common disease, and cicatrices are found in one-tenth of all autopsies made. Cicatrices are three times as common as open ulcers; recovery, therefore, occurs with relative frequency. Hematemesis is absent in the majority of cases, besides being a symptom of other affections also. The seat of the ulcer is in twenty per cent of cases in the space between the pylorus, the lesser curvature, and the posterior wall. It is not correct to say that the absence of tumor is one of the most important negative symptoms. Tumors are frequent, due to 1, old callous ulcers, especially when situated in the anterior walls; 2, excessive thickening of the pyloric muscles, a very common cause; 2, masses of exudate lying on the gastric wall, rare; 4, the projection of other organs through a perforated ulcer. Hyperacidity is usually present, but there are cases in which no HCl is to be found; and the acid is sometimes seen in carcinoma. The duration may be from twenty-five to thirty years, and intermissions in the symptoms are frequently mistaken for recovery and relapse. Pain is rarely absent, and has the greatest diagnostic value when it is situated at the xiphoid cartilage, and when dependent on the nature of the food, the time of eating and the position of the body. Dilatation of the stomach indicates that the ulcer is at the pylorus; contraction, that it is at the cardia; intermittent rigors that the spleen is involved; tenderness on pressure and absence of hemorrhage, that the anterior wall is affected; pain in the back and hemorrhage, that it is the posterior wall. A patient who abstains from food on account of pain, and thereby becomes emaciated, is probably suffering from an ulcer, and not from a carcinoma. The periodical weighing of the patient is very important for purposes of diagnosis.—*Am. Jour. Med. Sciences.*

THE *Pharmaceutical Record* says the prerequisites for a first-class "milk shake" are perfectly fresh rich milk, clean ice, ice-shaver, pure juice syrups and a good "shaker." The *Record* further adds that the necessity for fresh milk cannot be too strongly urged, for "if it be stale on the turn, or be it spoiled ever so slightly the imbiber is pretty sure to hear from it."

This being the case it is not at all likely that "milk shake" will be a popular summer drink.

ELY'S CREAM BALM consists of vaseline, 1 ounce; thymol, 3 grains; carb. bismuth, 15 grains; oil wintergreen, 2 minims. The directions are to dip the little finger into the balm and insert up the nostrils, giving two or three full inhalations.—*Med. Rec.*

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THE WEEKLY MEDICAL REVIEW.

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ORIGINAL ARTICLES.

CHOLRERA INFANTUM AND ITS TREATMENT.

Read before the St. Louis Medical Society, June 2.

BY H. F. HENDRIX, M. D.

At the onset it is well to inqnire what is meant by the term Cholera Infantum? What are its distinguishing characteristics? For a reply let us read the differential diagnosis of Drs. J. Lewis Smith, Robley Dunglison, Meigs and Pepper, Day, Eberle and others. They are a unit in distinguishing it from other diarrheal troubles: first, by its watery stools which are frequent and profuse, accompanied with vomiting, its resemblance to Asiatic cholera, and the intense devouring thirst. Its causes are said by those authors to be teething, exposure to heat or cold, errors of diet, foul air, etc.

The indications for treatment says Dr. Smith, are:

1. "To provide good food." Why he advises this first of all is not plain to my understanding in view of the symptoms.

2. "To procure fresh air." This might be an expensive commodity beyond the means of our patient.

3. "To aid the digestion." A difficult thing to do, I fear since the stomach rejects everything that is put into it.

4. "To employ such medical agents as can be safely given to check the diarrhea and cure the intestinal catarrh." "A consummation devoutly to be wished." But, says the same author, there is no disease unless it is membranous croup in which early and appropriate treatment is more urgently required, since the tendency is to rapid sinking and death, and gives tr. opii. deod. gtt. xvi; spt. am. aro. ʒi; bis. sub. nit. ʒij, syr. sim. ʒiss misturæ cretæ ʒss. M. Sig. Tea spoonful every two or three hours.

Dr. Eberle begins the treatment of cholera infantum by applying twelve leeches, six to each temple, fly blisters behind the ears and back of the neck, and follows with calomel in small doses, and to quench the thirst a spoonful now and again of hot water. Bleed, blister and purge, the system which is already depleted to the point of syncope. It is to be hoped for humanity's sake that he has few followers in this regard. He wrote, however, in the dark ages, way back in 1849, and may be excused on that account.

Dr. Day writes at a later period, 1881. He admits in the whole category of infantile diseases there is not one requiring greater vigilance and care. Any error in judgment is speedily fatal. The child should be confined to a spacious airy room, and the utmost quietude observed, and as a remedy in this terrible ordeal when the stools are profuse and watery, and when death is imminent by exhaustion, he advises a dose of castor oil or rhubarb, on the principle I presume, that in order to extinguish a raging fire it is necessary to add more fuel. Then if the child's strength fails, he gives krameria or laudanum. When there is vomiting, (which of course there always is in this disease,) he gives prussic acid, laudanum or morphia, with the consoling remark that too frequently nothing has arrested the vomiting. Here we leave Dr. Day and take up Dr. Charles H. Goodwin's little work of 1883, termed "Treatment of Diseases of Infancy and Childhood." Here we have an opportunity to profit by the experience of our New York brethren. Turn-

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ing to page 133, we read; Dr. Francis Delafield finds, (speaking of cholera infantum,) that treatment of any kind is very unsatisfactory, and further, for intestinal medication he knows of no remedy which in his experience has any very decided effect on the disease. But with the other M. D.'s, he considers it best in all cases of cholera infantum to send the child to some other climate,and the earlier the better. Nor in this respect, he advises, should there be any hesitation, even though prostration is so great that the child is apparently moribund. We find that however harmonious the medical profession is in regard to the causes, etc., of cholera infantum, they are none the less in accord with regard to the unsatisfactory results of treatment, as evidenced in the confession of the honest Dr. Delafield. And the same sentiments are emphasized by the daily press in mournful headlines in the hot days of July and August, "Burying the Babies" followed with a dismal list of cholera infantum. We turn to the cemeteries and see the perspiring forms of the over worked miniature mound builders, and here we have the last sad testimony, the last link in the chain of evidence that treatment of any kind is unsatisfactory.

Seven years of immunity from death of a single case of cholera infantum in my practice, (having treated a fair share of the cases which have occurred in St. Louis during that period,) and in view of the gravity of the disease as evidenced by all writers on this subject (whom I have consulted,) I am profoundly impressed that it is not only my privilege but my duty to give to my professional brethen and through them to the world, the means which I employ, hoping that they will find them potent as I have in arresting death and restoring to parents their household idols. We are told to send these cases to the country. This is seldom practicable, and were it so the tendency to death by exhaustion is so rapid that want of time would preclude the idea of so doing. Place them in a large well ventilated room, and enjoin the most perfect tranquility.

Now, inasmuch as the greatest number of cases occur amongst the very poor who are not well provided with apartments such as advised, and many of them located on filthy alleys, and their surroundings indicate that soap and water are to them unknown, we find that we are handicapped in regard to these measures, and however unwilling we may be to do so, we must treat the cases as we find them.

Then the question arises what is to be done. Now, without further preliminaries, I will refer to a case treated by me in 1880 by way of illustrating my position. Eddie E., eighteen months old was brought to my office on one of the very warmest days in July, who, the mother stated had experienced the first watery discharge about one hour before. But even at that early moment of the attack, the symptoms were alarnimg, breathing rapid, skin cold, discharges frequent, watery and profuse, the mouth and tongue dry, eyes partially closed, showing the white conjunctiva between the lids. The system was relaxed to such a degree that if the arm was elevated and released it would drop as though the child was under the influence of an anesthetic. I began, as is my custom in those cases, to prepare a glass of ice-water, and at the click of the spoon on the glass, and the sound of the ice, as it was stirred, the child's failing faculties were aroused, and I shall never forget the gaze fastened upon that glass. Nature with all its intensity seemed to concentrate its forces in that overweening demand for water. The glass was presented to its lips and clasped tightly by its feeble hands; and had to be forced from its grasp even after it had been drained to the last drop. The astonished mother believing, as most of the laity do, that water is poison, said "Doctor, you will kill my baby;" and when after about five minutes the child vomited, her convictions were confirmed that this would soon be another case where the doctor killed the patient. After the vomiting ceased the child was as anxious for drink as before, and I prepared another glass as I had the first. The mother became almost violent in her objections and started to leave the office, but I finally pre-

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vailed upon her to allow me to have my way in the matter, and as I offered to assume all responsibility if my directions were strictly adhered to, she became resigned. I then presented a second glass. It was imbibed as greedily as the first had been, which, in its turn was also brought up. A third and a fourth shared the same fate. Nothing daunted, however, I gave orders to have the treatment continued until thirst should be appeased. In the meantime fifteen grains of subnitrate of bismuth was ordered to be given every two hours, and a small portion of bicarbonate of soda in the water as follows: Bis. sub. nit. grains 180, divided into twelve powders, one to be given every two hours,and soda bicarb two drachms, and divided into twenty-four powders. "Put one in a six ounce bottle of hydrant water,keep it on the ice and give the child to drink until thirst is appeased, and subsequently during the heated term."

The case above described came to my office about four o'clock P. M., received the first treatment at that time. Drank four glasses of ice-water within a half hour and the directions given as above. Four hours thereafter I visited the patient to find it peacefully sleeping. The mother stated that at about eight o'clock the child had refused to drink,after havings swallowed, by actual measurement, 1 gallon and a half of water, (that is, between the hours of of half-past four and eight o'clock). My morning visit next day found the patient standing on the floor by a chair looking bright and cheerful.

This paper, as you observe, is confined strictly to the discussion of cholera infantum excluding all other forms of diarrhea, and the rule is without exception (so far in my hands) as in the case detailed above, precluding the necessity of writing up additional cases. Improvement is co-incident with the administration of the first libation, and the moment the thirst is appeased, the child falls into a quiet sleep to awake refreshed and invigorated, and seems to have passed at one bound from the very jaws of death into life and health.

Now, the question arises: Is this a rational treatment? My answer is in the affirmative; and I will prove my position by asserting that all the causes (save heat of the weather) are present and in operation during the late fall, winter and early spring months, and yet you never hear of a case of cholera infantum. We may have the cutting of teeth, bad ventilation, bad sewerage, swill milk, unwholesome food, in fact all the causes combined do not produce a single case of cholera infantum. It occurs only during the hot months of summer, and it would seem that the mortality from this disease is in direct ratio to the intensity of the heat, and we all know that with the approach of hot weather comes the desire for cooling drinks, and we often find ourselves at the cooler supplying the increased demand for cold water incident to the increased evaporation from the surface. Now, let us inquire, Are the the children thus supplied? Do they also have free access to the cooler as the demand arises for drink? No, the mothers think their little stomachs are too tender to stand so potent a beverage as iced water, as evidenced by their answers when accused of having given their children cold water. "No," they will say "the little thing was so thirsty I gave it a little hydrant water on my finger." Now, I claim that the withholding of cooling drinks when the system demands them, is the most prolific cause in the production of cholera infantum, and that the alimentary canal is the first to suffer. Diarrhea supervenes, and the tissues and the blood becomes depleted, gives up its water of composition which is poured out in this colorless fluid so much spoken of by the writers; hence the thirst, hence the sinking, hence the blue skin, hence the collapse, hence the death; unless the system is reimbursed to the extent of giving back the wasted fluids which can only be done by giving plentifully of water. So far from feeling discouraged if the child vomits the first few glasses given it, I should feel disappointed if it did not, because we know from the rapid molecular action along the alimentary canal that there is a much greater degree of heat there than is indicated by the superficial appearances of

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the body, and by giving water at a temperature of forty-five degrees,(which is about the proper thing), and have it returned in a few moments, at a much higher degree of heat, we know that the water is heated at the expense of the hyperpyrexia of the primæ viæ, and notwithstanding the vomiting on the part of the patient we feel and hope that a portion of the water is retained and absorbed, and in this way the blood regains its lost elements, and resumes its functions as a carrier of nourishment to the different parts of the realm.

Now, to prevent disease, I claim, is as much the duty of the physician as to cure, and anything to that end suggested by the medical profession will, I feel sure, find a ready response in the hearts of the people; and in this connection I feel it my duty to say, (taking my own observation as a guide), that cholera infantum will not occur in any case where a plentiful supply of cold water is given at all times and on all occasions, night or day, whenever the little one desires it. And, further, I would like to impress it upon the minds of all who have the care of children, to lay aside any scruple of reserve they have in regard to giving cold water, and to give it freely. Those not able to let their wants be known should have it placed to their lips and let to drink to their satisfaction.

The Ice Mission which we had in St. Louis, a few years ago I considered to be a great charity, second to none in the matter of preventing and relieving the suffering of those whose means are too meagre to purchase this precious necessity.

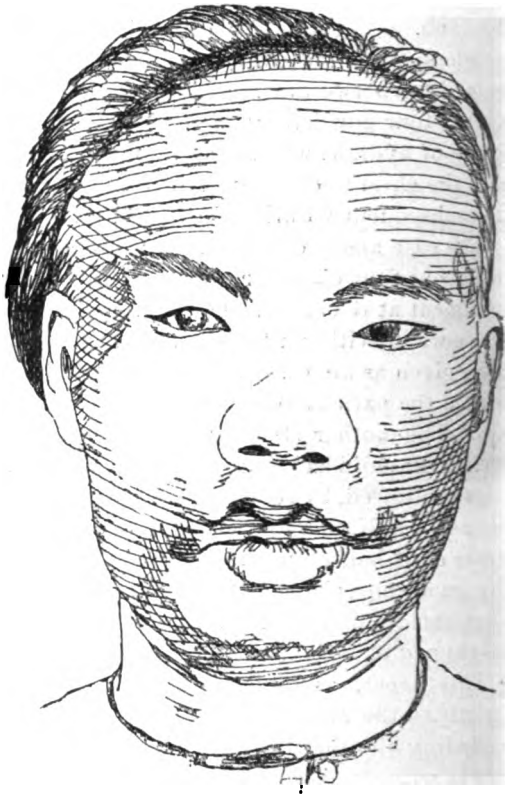
The only thing in the way of its accomplishing its high mission at that time was the prejudice of those having the care of children against the free use of water to them.

I therefore hope to see the custom of distributing ice to the poor again inaugurated with the onset of our heated term, and the people given the assurance by the medical profession that its frequent use is harmless to the babies.

A CASE OF LEPROSY.

BY BRANSFORD LEWIS, M. D.

On a recent trip to the Quarantine Hospital, made especially with a view of obtaining photographs of the case of leprosy discovered in this city, not long since, by Dr. W. A Hardaway, I was well rewarded by a clinical demonstration of the disease, which considerably altered the impressions of it received from book descriptions.



Thinking that they may not be without interest to the readers of the REVIEW, I present the accompanying photos. The following clinical history of the case is kindly furnished by Dr. L. M. Perkins, of the Quarantine Hospital.

"Joe Toy, Chinaman, æt. 28, single, laundryman. No hereditary predisposition to leprosy. During his boyhood he had seen a

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w lepers, but they were not permitted to ingle with non afflicted persons.

Patient came to this country 8 years ago,and ttled in Oakland Cal. for two months, then me on to St. Louis, where he remained for ur years. He then made a two year's visit China. Returning he again made St. Louis s home until sent here March 13. The dise made its appearance during his first stay St. Louis ,about two years after leaving his ative land. He cannot locate the exact time the invasion of the disease. The first aparance was on the dorsum of the great toe, the form of a very small papule. For a me this appeared to come and go, but at ch retnrn was larger than before. About e same time the muscles of the right thumb gan to atrophy, and an eruption to appear the right forearm.

His face, body, and all extremities are now volved, the spreading being as follows:

Right extremities involved 6 years ago, ft lower, 5 years ago, and face and left upr extremity 2 years ago. The eruption has used him no trouble, except on the right rearm, where for 3 or 4 days there was inlerable itching. When this itching ceased noticed that the part was anesthetic.

His strength remained good until a few eeks before he was sent to Quarantine. nce he has been here his general health has proved somewhat. The eruption is still mparatively smooth, is in spots and patches mething similar to ringworm. As the cirmference of the spots increases the center ears up and becomes anesthetic. Needles ay be thrust deeply into the tissue without giving pain. The ulnar sides of both hands are almost entirely without sensation, and the radial sides are also much impaired in that respect. Atrophy of the muscles of the hands, especially of the right, is quite marked. The patient has no trouble with his excretory functions, other than slight constipation. His appetite is remarkably good; sleep is undisturbed, and notwithstanding his isolated condition he is ever cheerful and happy. His treatment has been a tonic course, under which his general health has improved, but the disease marches slowly on."

At the last French Surgical Congress, at Paris, M. Verneuil the president, in the course of his opening address, took occasion to reply to what he termed the "unkind charges" made against French Surgery by Prof. Billroth. The eminent Austrian had disdainfully reproached the French school, which he said very lamely followed the German and English schools.

M. Verneuil accuses Billroth of ignorance of the teachings of the French, and gives this as the reason why he did not quote or make mention of the best French writers, in his work on general pathology? "This very singular aggression on the part of Prof. Billroth," he says, "is because he is not well posted, for no one ignores French surgery more than he. He does not cite French authorities, because he does not know them."

Not satisfied with a defense of his own nation, M. Verneuil carries the war into the enemy's camp. "The truth is," he continues, "that French surgery does not build at the temple of the God Bistoury. In Billroth's eyes the French surgical operations remain at rest, *ratio ultima et non prima*. Yet French surgery only avoids those unripe operations tottering on an insecure foundation. Surgery has only one duty, to relieve or to cure in the most simple manner, and with the least possible expense. The only duty of the bistoury is to be very clean, and to cut in the best possible manner. French surgery manifests a certain preference for bloodless procedures.

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SATURDAY, JUNE 23, 1888.

SPECIAL ANESTHETICS FOR SPECIAL CASES.

In a lecture recent delivered at the London Hospital, Dr. Frederick Hewitt drew marked attention to the effect of the various anesthetics on patients suffering from grave constitutional disorders.

He took the position that patients laboring under one class of diseases bore ether better than chloroform, while another class bore chloroform better than than ether. He recommended three anesthetics, pure ether, pure chloroform, and "A. C. E." He divided the conditions under which patients were found previous to operations into five classes, and gave what he thought to be the indications for using a certain anesthetic in each class. His data came from full reports on a large number of operative cases in the hospital.

Under "group one" Dr. Hewitt places general conditions of asthenia and collapse, acute and chronic intestinal obstruction, advanced esophageal or pyloric stricture, prolonged suppuration with hectic fever, profound cachectic or anemic states, recent and profuse loss of blood, etc.

In this class of cases he holds that pure anhydrous ether is the anesthetic indicated. The stage of excitement and tonic spasm common in stronger persons, he thinks is usually feebly represented, if at all present, and smaller quantities of the fluid will suffice. He is not opposed to the A. C. E., mixture under this head (if given gradually by means of a drop bottle and Skinner's mask,) but unhesitatingly condemns the use of nitrous oxide, either as a separate anesthetic, or in combination with ether, for the reason that the function of respiration, already weakened in common with all the vital forces of the patient, is prone to become progressively shallow, and to cease from sheer failure of the nervous mechanism. Undiluted chloroform is contra-indicated here, unless special indications exist, for the reason that the stimulating effect of the drug is far less than that of ether, and a comparatively small dose may produce fatal or at least alarming cardiac depression.

Under "group two" he places (alone) "morbus cardis", and he is of the opinion that pulmonary complications are of great import in these cases. When there are evidences of pulmonary edema, chloroform is indicated, for the reason that these cases usually resolve themselves really into pulmonary cases. In cases free from pulmonary trouble, the lecturer found that ether or the "A. C. E." served a better purpose, and administered carefully and gradually were well borne. If, however, it be found after commencing the administration of ether or A. C. E. that respiration becomes embarrassed or cyanosis is produced, the change should be made at once.

Group three. "Functional and organic diseases of the brain;" cases of cerebral tumor, abscess; recent or old fracture of the skull; those cases in which an anesthetic is required in patients already unconscious, epileptics and the insane. Chloroform is preferable for patients of this group, for the reason that sometimes pulmonary edema is present in this class of cases; but should respiration be impaired, the A. C. E. or pure ether must be resorted to. In cerebral surgery chloroform he thinks, far preferable to the others; first because under its use cerebral hyperemia is far less than when ether is given, and secondly, because should any pulmonary engorgement previously exist or arise during the operation, the vapor of chloroform will necessarily be better tolerated than that of ether.

Group four. Affections of the respiratory passages and pleura, obstructive conditions of the air passages producing dyspnea, etc.

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ranced chronic bronchitis and emphysema, hronic pneumonia, phthisis, general or pecial pulmonary congestion, hydrothorax r pleuritic effusion and empyema.

In all these cases respiration becomes more r less labored, and chloroform seems to be orne better than either of the others. Its apor is less irritating and less likely o increase any catarrhal condition that night be present, whilst the stimulant ef- ect produced upon the respiratory move- nents is far less than that produced by ether.

Renal diseases. The lecturer had not been ble to make wide observations in this class rom the difficulty of making diagnosis in the arlier stages. He was of the opinion how- ver, that the A. C. E. mixture was desirable hen Bright's disease could be made out, be ecause of the tendency of all such troubles oward edema, pulmonary and otherwise.

In concluding, the lecturer pointed out that rave results often followed unwise anes- hetization, and insisted that a close study of ll the conditions in each individual case was f prime importance.

In connection with this same subject, Prof. W. W. Dawson, of the Ohio Medical College, elivered an exhaustive lecture recently (*Amer. Lancet* June, 1888) in which he re- luced the question of the special anesthetic ndicated, to the two conditions, respiratory mbarrassment and heart trouble. However, e argued that idiosyncrasy had much to do ith the effects of both chloroform and ether, e had seen patients die after inhaling twenty rops of chloroform, where that particular nesthetic seemed to be specially indicated, nd again he had seen the most happy effect n cases that would seem to contra-indicate t. He thought that chloroform was always nore dangerous than ether, but his experience ad been that ether was indicated in patients ith heart trouble, while, as a rule, chloro- orm should be given when there was likeli- ood of pulmonary embarrassment. As for the A. C. E. mixture, he suggests that the opera- or was taking the risk of two anesthetics ather than one, and would not endorse the heory that the alcohol in the A. C. E. served to counteract the depressing effect of the other two, or either one of them. The alco- hol does not by its stimulant action counter- act the depression due to chloroform for the reason that chloroform does not weaken the heart, but rather "animates the heart, than smites it suddenly."

The Dangers of Intestinal Puncture in the Treatment of Tympanites.

In a paper read before the New York Clin- ical Society (*N. Y. Med. Jour.*) Dr. B. Far- quhar Curtis called attention to the dangers accompanying the puncturing of the intesti- nal wall by aspirating needles for the pur- pose of lessening the amount of tympanites. He did not altogether condemn the proced- ure but offered the facts which he had accu- mulated, as an argument for the restriction of its use to those cases in which it is evi- dent that the patient will succumb to the pressure on the diaphargm unless relief is af- forded at once. He cites a case which came under the care of Dr. Thomas, the patient be- came cyanotic and evidently about to die, mak- ing only four respirations per minute. A fine aspirating needle was introduced through the abdominalwall and a large quantity of odorless gas escaped. The patient rallied and made a slow but good recovery. He thought it probable that the gas in this case was in the peritoneal cavity.

As illustrative of the dangers of the treat- ment, Dr. Curtis gave the following:

"In a case in which enterostomy was per- formed for intestinal obstruction by Müller ("*Arch. f. klin. Chir.*," xxiv, 178), while the gut was being secured to the edges of the wound in the abdominal wall before it was in- cised, a fine stream of fluid feces was ob- served to issue from the intestine every time the needle penetrated the wall of the gut, al- though the needle and thread employed were very fine. In this case the tympanites is said to have reached an unusually extreme de- gree, and one of the safeguards of puncture with a hollow needle was of course wanting for, when the latter instrument is used, the

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tension of the gut is at once relieved by the escape of gas and feces, and the collapse of the bowel facilitates the closure of the wound made by the needle. But the case is an instructive illustration of what minute wounds will permit fecal extravasation."

He also called attention to the fact that a number of observers have found that an opening made in the bowel for the relief of intestinal obstruction, even with a fine aspirating needle does not always close, but in many cases allows gas and fecal matter to escape.

When the abdomen is tensely distended by the accumulation of gas in the peritoneal cavity, there can be no question as to the advisability of relieving the pressure by the use of the hollow needle.

Fever and its Abatement.

Dr. Mortimer Wilson of Port Huron, Mich., adds an interesting chapter to the literature on fever and its abatement, (published in the June number of the *Amer. Lancet.*

Fevers, he thinks, are of two classes; 1, those caused primarily by vitiated human cells, acting as the irritant of the nerve centers, and 2, those caused by a specific germ, as in the specific fevers. He asks the question, "Is high temperature of itself an evil, or is it conservative?" Knowing that certain forms of life and disease germs of animals are limited, at least in their activity, if not in their life, to a very narrow range of temperature, it has been surmised that fever may be simply an effort of the economy to rid itself of these germs. If this hypothesis were true, the reduction of temperature would be contra-indicated. He answers the question in the negative, holding that though slight and transient fever may possibly conserve some natural purpose, yet, it is the universal instinct of mankind that high temperatures are in and of themselves repugnant to the well being of the body, and are to be combated by all suitable means.

With reference to the abatement of fevers in the abstract, Dr. Wilson presents some most useful facts, concerning the administration of the commonly accepted antipyretics.

He classifies all antipyretics under two heads, 1, those which lower the temperature and at the same time affect—in some degree at least—the cause of the fever, and, 2, those which, while lowering the the body heat, do not in any way affect the cause of the fever.

In the first class he places the cool or cold bath and quinine. In the second class he places resorcin, antipyrin, thallin, kairin, and acetanilid, or antifebrin.

In many cases he has found that the nature of the antipyretic was immaterial, so long as the heat of the body was lowered, while in other cases his judgement was that much damage could be done by an injudicious selection of remedies.

He considers the cold bath an excellent means of reducing the temperature, but deprecates the practice of calling the use of this remedy a "pathy."

Quinine, he thinks the safest of all the antipyretics, but he has found a serious objection to its use in some cases on account of its cerebral effects.

Of the remaining remedies for high temperature, *per se*, he makes sub groups, dividing them into, 1, the phenol group, consisting of resorcin, carbolic and salicylic acids, and their derivatives; 2, the chinolin group or the fabricated alkaloids, consisting of antipyrin, kairin, and thallin, and, 3, the group of neutral substances, represented at present by only one drug, acetanilid, or antifebrin.

Resorcin belonging to the phenol group, is closely related to the alcohols, and acts similarly. He has found that it reduces temperature by increasing heat dissipation, through decreased cutaneous circulation, and diaphoresis; that it slows the pulse and decreases arterial pressure; that it has a tendency to produce venous congestion, and in small doses often repeated, it has value as an intestinal disinfectant in typhoid malarial fevers.

Antipyrin, he thinks, weakens the heart's action, is contra-indicated in debilitated patients, and sometimes has failed to reduce the temperature in 15 grain doses; he has found

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that its antipyretic effect lasts 3 or 4 hours, that its administration sometimes causes nausea, heart-burn and vomiting. He thinks it reliable in general, but insists that its effects should be closely watched. He believes it has an analgesic effect of considerable power.

Of antifebrin, he says: "As a pure antipyretic, it has nearly three times the power of quinine, without its disagreeable cerebral effects, and four times that of antipyrin; besides it has all the advantages of the other antipyretic drugs. * * * I prefer acetanilid, it being safe, reliable, and pleasant in its operation; and its action being directed more to checking the production of heat, it is not often necessary to produce diaphoresis in order to secure its best action. He has found that in doses from 4 to 6 grains its best effects are obtained.

Electrolysis in the Treatment of Urethral Stricture.

Electrolysis in the treatment of strictured urethra has met with a warm champion, in the person of Dr. T. H. Burchard of the Bellevue Hospital College. His remarks on the subject, (published in the *Med. Rec.* for June 16,) while containing nothing new, perhaps, will go far toward begetting confidence in the procedure—something which has been manifestly wanting in regard to this operation in the past.

According to his finding—upon a trial with twenty cases—the operation has many advantages over any of the current methods of treatment, not the least of which are its painlessness, and the almost absolute immunity of patients treated by this means, from ugly sequelæ such as urethral abscess, traumatic exits, etc.

His description of its application in a reported case is worthy of quotation: "Newman's insulated olivary bougie No. 14, passed to first (deep) stricture. Current from six cells (Drescher's 40-cell battery, zinc and carbon elements) passed through bougie, connected by negative pole for 15 minutes, when the bougie slipped gently through the stricture. No further attempt at electrolysis was made that day. Not the slightest pain was produced and no unpleasant symptoms followed. November 11, (nine days after first operation,) Newman's bulbons bougie No.15, was passed and engaged in the stricture; current from 8 cells for seven minutes producing no pain, only a slight sense of discomfort, permitted the ready passage of bougie. The absolute painlessness of the procedure tempted me into essaying the deep stricture five and one third inches from meatus. No. 8 bougie, six cells, 14 minutes passed readily to the prostate.

He calls attention to the resulting smoothness of the urethral lining. compared to that after treatment by dilatation, division, or both.

His deductions are: 1, many cases of stricture, especially those of a fibrous nature, can be more effectively relieved by the action of the galvanic current applied locally, after the manner recommended by Dr. Newman, than by either gradual dilatation, divulsion or internal urethrotomy; 2, the operation while radical, and effective, is conservative and physiological. It aims at producing its results by methods that are strictly physiological and never by cauterization or other destructive agencies; 3, the operation is painless and bloodless.

Scotch Oats Essence.

Most persistent war is being made just now on the "Nostrum Nuisance," by the "Druggist's Circular," of New York.

In the June number nearly a page is given to an editorial article headed "Morphine-Whiskey-Oats," which proves to be a most unequivocal and direct charge of fraud against the manufacturers of "Scotch Oats Essence." The next editorial devotes itself to a bid for a libel suit, and winds up by the assertion that if the manufacturers of that fraud decline to bring suit for libel the Circular will itself take the initiative by bringing suit against the advertising agent of the company for impuging the motives of the

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Circular for exposing the fraud. Further along in its editorial column the Circular, in deprecating the manufacture of proprietary goods, says:

THE NOSTRUM NUISANCE.

"There is some reason to believe that in the course of time the nostrum nuisance will be somewhat abated in this country. Our legislators will some day see that secrecy in medicine is an element more likely to prove of advantage to private humbugs than to the public health.

That the efforts recently made in this state to eliminate this element proved a failure is scarcely a discouragement to the friends of the movement. The measure itself was ill considered and not properly supported, and its failure was a foregone conclusion, but it has likely proved an entering wedge for legislation in this section of the country, as a similar movement in Kentucky will prove the forerunner to legislation in the West.

The nostrum nuisance has very recently been forcibly presented to the pharmacal public at association meetings, and the drift seems to be in the direction we have indicated. Persistent efforts will be required to bring about the proposed reform, and these can best be made by pharmacal organizations working in concert.

If such organized efforts be made, an adoption of the Continental method will eventually result—the nostrum makers will be obliged to work in open daylight, and will be shorn of their power to humbug the gullible public with imaginary "discoveries," or to poison them, when that proves to be the more profitable way."

Chloroform in Labor.

In a paper read May 8, 1888, before the Gynecological and Obstetrical Society of Baltimore, Dr. P. C. Williams said that he had used chloroform in cases of labor during his practice of thirty years and his experience induces him to use it with increasing confidence and frequency.

The indications for its use, which he mentions in his paper, are to mitigate uterine pains, to relax a "rigid os" and an unyielding perineum, and to add to the safety of the patient in all kinds of operative procedures.

He calls attention to a fact which he justly says is too often overlooked, that long-continued and severe labor pains have a very depressing and exhausting effect upon the patient. He has found that chloroform conserves the patient's strength more satisfactorily than any other remedy that he has used. In his experience organic heart disease has been no barrier to its use, and it does not predispose to post-partum hemorrhage.

However in deference to the apprehension on this point of many able practitioners he had made it a rule to give ergot before pushing the chloroform to a decided effect.

We are of the opinion that aside from cases in which operative interference is called for, instances are rare in which narcosis sufficient "to put an absolute check upon the pains," is either needed or justifiable. Chloroform is a great boon to parturient women, but it should be used with care.

EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

Is there a medical society in the country wherein there cannot be found a Mr. Pickwick?

He is ever and always a gentleman—combining true gentleness of heart and mind with chivalrous conduct and exalted principle, but ever and always at the front in advancing ideas that are essentially "Pickwickian."

* * *

I cannot recall a more thoroughly misused and abused term in medical nomenclature than the one which, like charity, is made to cover a multitude of sins for which it is not responsible, viz., malaria. It is a misnomer in itself. The idea of calling a disease by a term which is possibly expressive of that which may be its cause, is absurd.

Bad air may occasion disease, but it cannot well be a disease.

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I venture the opinion that seventy-five per nt of the so-called cases of malaria are thing more than errors of diet coupled th improper clothing—a chilling of the dily surface, a checking of secretion, an pairment of the circulatory equilibrium, a ngestion of internal organs, a resulting dis-rbance of the nervous system and faulty di-stion.

* * *

Speaking of the abuse of the term malaria ings to mind naturally the thought that of the drugs in the materia medica none ve been so maniacally, extravagantly, need-sly given as quinine.

If all the demoralized stomachs and rattled rvous systems in the land were to take the and and testify truthfully, what a tale of e they could unfold.

The laity lucklessly load themselves down ith the drug without rhyme or reason. The ring and ubiquitous druggist from the per-med proprietor down to the beaming and uncing bottle washer, shovel it into suffer-g humanity in season and out of season, and for what? For the simple reason that the dical profession has educated them to do by its habit of mechanically and lazily say-g to every victim who comes along, "You've t malaria; take some quinine."

* * *

Let us call a halt, examine our cases more refully, and recognize the fact that qui-ne is an agent potent for evil as well as od. That like every drug or tool in our dical and surgical armamentarium it should used carefully, and not trusted to the un-ilful.

* * *

How quickly the latest "fad" in medicine picked up by the lay public! Chloral, icylic acid, cocaine, antipyrin and all have ir run, and the blessed innocents go on, klessly rushing in where angels fear to ad, saturating the shining disks of blood rging through their veins with any medi-nent that possesses the merit of novelty, the ability to upset their nerve centres or ir secretory systems.

The iconoclastic Ingersoll, in his recent pointed and pithy pronunciamento, in the *N. Amer. Review* for June, against Christian-ity, as previously presented by that grand old man, Gladstone, is a rehash of his various di-atribes against the meek, lowly, suffering and patient Man of Sorrow and the cause He represents. That it is plausibly and attrac-tively presented goes without saying, and it unquestionably forces the conviction that they who argue with Ingersoll err. Logic, prin-ciple, the facts of universal history, the soul's necessities, everything will go down, or suffer, when pitted against keen satire, pun-gent, penetrating wit, and an irreverent, ar-gumentative, undignified, blasphemous, though polished lawyer.

Mr. Gladstone showed as bad judgment as though he had attempted to defend some part of his rural possessions, dear to him though they might be, against an attack from the *mephitis Americana.*

* * *

What a pity that the brilliant Ingersoll does not confine himself in his literary ef-forts to positive work rather than negative, to building up rather than tearing down. As an exponent of the beauty, sublimity and sa-credness of the home, how he shines! And in so shining he casts no shadows in the path of any single human soul. But in shaking the faith of those who want to believe, who try to believe in a crucified Savior, he shines at their expense, and sometime he will regret it. It seems strange that a man so full of sentiment, brotherly love and human sympa-thy should direct his bright mind so as to darken so many hearts.

He says in his article above referred to: "If there is anything of importance in this world it is the family, the home, the marriage of true souls, the equality of husband and wife, the true republicanism of the heart, the real democracy of the fireside."

It is sad to think that a man who can des-cant thus graphically and beautifully of the home, who is in reality the artistic delineator of friendship and the fireside, can lend him-self to the ghoulish work of tearing down one

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of the strongest props to the sentiments dear to him and humanity; to the putting out of the light which brightens and illumines the homes and the hearts happiest in the world.

* * *

Who that has ever spent one or more years as a resident physician to a metropolitan hospital can fail to appreciate the admirable article by A. B. Ward on Hospital Life in the June number of *Scribner's Magazine*. As I read the lines descriptive and view the artistically perfect engravings, delineating the interior scenes of Bellevue, the years of '72 and '73 come back to me, and I would that I were twenty again, just for to night. And it all brings up the thought with which I have often been impressed, that the poor pauper, whom nobody owns, is wonderfully well cared for when a victim to accident and disease.

Under the care of a resident medical staff, earnest and faithful, which has the benefit of advice from a consultation staff, skilful and severely scientific, and as good as the best money in the land can buy, constantly nursed by gentle and tender women, trained and true as a Florence Nightingale, who can say that God's helpless and poor are not more fortunate when in sickness than many in the higher walks of life.

* * *

This brings to mind a custom which obtains in most large cities and suggests the importance of our following suit—that is the formation of a society of ex-resident physicians of the City Hospital. What say you, Doctors Mudd, Fry, Lemen, Meisenbach, Homan, Dalton, Brokaw, Prewitt, Dean, Glasgow, Hodgen, Hasse, Holland, Atkinson, Bryson, Hypes, Smith, Dorsett, Rohlfing, Dumesnil, Shapleigh, Hall, Newman, and many others whose names I do not now recall? Every one of us can but admit that the days spent in the hospital were among the most delightful of our professional lives. And let us, then organize ourselves for the purpose of keeping up the memories of those years, and in addition cultivating our scientific tastes and necessities.

Resection of the Wrist.

"It is possible to make a resection of the wrist and retain the action of the tendons of the wrist and hand, without danger and without fever," said M. Oliver, of Lyons recently, in a paper on this subject.

He operates under strictly antiseptic methods. He says that surgeons can no longer consider themselves fortunate in obtaining anchylosis after a resection of the wrist. The articulations which may be obtained have amplitude and strength. He cited a case in which he performed this operation and the man was afterwards able to lift a twenty-four pound dumbell; and another in which the patient, a woman, was able to play on the piano.

The production of anchylosis of the knee joint is not so frequent as formerly. Useful motion is now retained in cases that formerly would have been anchylosed.

Mitchell District Medical Society.

Indiana is again preparing for an intellectual feast for the profession. This time it is to be the Mitchell District Medical Society. The meeting is to be held June 20 25, at French Lick Springs, Orange Co., one of the famous health resorts of the state. Preparations are being made to have an enjoyable time.

The Missouri doctors have been pressed by the committee of arrangements to attend, and it is probable that a goodly representation will be on hand. Dr. Elder, of Indianapolis, and Dr. N. H. Hon, of the Springs, have the matter in hand. Low railroad and hotel rates have been secured, and a pleasant and profitable trip is offered to those who wish to attend.

Dr. Stogart calls attention to an easy method of preventing the mirrors of instruments from becoming dimmed by moisture while in position in the natural cavities. He suggests spreading upon thsir surfaces a drop of glycerine, when, even in the throat, they do not become dim.

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SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Saturday Evening, June 2, 88. The president, Young H. Bond, M.D., the chair, J. B. Prichard, M. D., Secretary.

Dr. Dalton—I have several specimens ıre. One is a case of calcareous degenera-ɔn of the spleen and splenic artery. A an, aged 81 years, who, for four years pre-ous to his death had been troubled with ronic dysentery. He died rather suddenly, d upon post mortem I found this calcare-ıs spleen and splenic artery. In cutting to the spleen I found that there is one yer that is almost entirely bony; it is ex-emely hard.

The next specimen is a kidney in which ere is a double pelvis and a double ureter. he two ureters which leave this one kidney ıite and enter the bladder as one.

The third specimen is one of ulcer of the ɔmach which perforated, producing peri-nitis. It occurred in a negro man about years of age. The perforation took place midnight about four days ago. I saw the se the next morning. My assistant gave m a hypodermic injection of morphine be-re I saw him. At the time of the perfora-ɔn the patient had an intense pain about e umbilical region—an excruciating pain, fact; the temperature rose to 102.2° F. ıe day after the perforation I considered ı condition too grave for laparotomy, but e second day his condition became better, d a number of surgeons consulted in regard the case, and we all agreed that laparot-ıy ought to be performed, so it was done at o o'clock of the second day after the perfo-tion. We found a very beautiful ulcer of e stomach about as large as a nickel, with o or three fistulous tracts leading from it d opening upon the serous surface setting a peritonitis. There was a large accumu-ion of sero-purulent material in the ab-minal cavity. We had some difficulty in ding the perforation upon the outside of e stomach. We filled the stomach with water, but it did not leak at the fistulous opening, and we were inclined to think that there was no perforation, but on turning the stomach over and examining more closely we were very certain that a perforation had taken place. We cut a hole in the stomach and found this ulcer which is as large as a nickel. It seems that during the inflammation following perforation an agglutination of the parts took place. The patient was in such a desperate condition, sinking rapidly, that we thought it would not be advisable to excise the ulcer, so we closed up the opening in the serous coat, and also the opening made into the stomach. The patient died six or eight hours after the operation.

Postmortem revealed abscess of the kidney, showing that death of the patient was inevitable.

He had been suffering with gastric trouble for seven weeks before he had been admitted to the hospital; for ten days before the perforation occurred he had been passing large, dark gruesome stools, which were from this ulcer of the stomach. He also suffered occasionally with very severe pains about the stomach, so that taking into consideration all the symptoms of the case we readily diagnosed a perforating ulcer of the stomach.

Dr. E. H. Gregory.—It is not often that I have a specimen that I think of sufficient interest to show to the society, but. I think there are some points about this one. This tumor was brought to me from Alton, Ill. It is a postmortem specimen, the patient having died on yesterday. I went to Alton just five weeks ago to remove this tumor. I opened the abdomen, supposing it to be a multilocular cyst. The patient was then suffering so much with her respiration that before my arrival the doctor in attendance had threatened to tap her. She could not lie on her back, she had to repose on her side, and it was with difficulty that we kept her alive during the time we were occupied in exploring the mass. I think she received a number of hypodermic injections of brandy before I could satisfy myself of the propriety of prosecuting my efforts further. After ex-

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posing the tumor I thrust a giant trocar into the mass, and I felt that it was entering solid structure, still I thought it must be a cyst and I thrust the trocar in several inches, but nothing came away. I enlarged the wound so I could get my hand in, thinking there might be some pultaceous material which I could remove; but I found it was a solid mass and I felt that it would be impossible to remove it and the patient survive; therefore I closed the abdomen, and she lived five weeks. The wound united by first intention. A knuckle of intestine had pushed its way up above the bladder, and I discovered, when the patient was on the table that there was resonance above the bladder and I made my incisions a good deal nearer the umbilicus than the pubes, and after entering the cavity I found the coil of intestine adherent to the tumor above the bladder. This woman had suffered eighteen months more or less, but within one year the tumor had grown so as to interfere with the functions of various organs; in fact it has grown more within the last six months than it did all the rest of the time. The doctor who made the post mortem states that there was no connection of the tumor to the broad ligaments or to the ovaries, but it was connected with the mesentery. The tumor is of an immense size, weighing eighty-nine pounds.

Dr. Young H. Bond.—Were there any adhesions other than to this bowel?

Dr. Gregory.—The adhesions were not very general. I succeeded in breaking up a number of adhesions myself, but I felt that the adhesions were no obstacle at all. I gave up the operation simply for the reason that it was a solid tumor and I could not reduce the size of the mass, and it seemed to me that no incision that I could make in the belly would permit it to pass as a solid mass. I was satisfied from the condition of the woman, who was almost pulseless, that if I proceeded with the operation she would die on the table: so I desisted.

Dr. Edw. Borck.—Of course the specimen is of very great interest; it is a very large tumor, but the question arises in my mind, could not a diagnosis have been made without making an exploratory incision; that is one question; then again comes the query after the exploratory incision was made and it was found that it was a fatty mass, would it not have been best to have removed it piecemeal. The specimen shows that there was no adhesions. Of course the patient may have died on the table, but I do not see why the operation should have been abandoned. Of course we are not in a position to criticise the course pursued by Dr. Gregory because it is quite a different matter to discuss a case postmortem from what it is when we have the patient before us and see all the circumstances in the case, still those questions have suggested themselves to my mind.

Dr. A. H. Meisenbach.—I understood Dr. Borck to say this tumor was a fatty tumor?

Dr. Borck.—I say, if it is a fatty tumor.

Dr. Meisenbach.—It seems to me, Mr. President, that this tumor does not present the history of fatty tumors. If I understood the remarks of Dr. Gregory, he said this tumor had developed and caused the patient trouble only within the past year. Now this does not seem to be the history of the growth of fatty tumors, but points more to a growth of a more malignant character, and especially to that of sarcoma. The tumor externally looks like a fatty tumor, but sarcomas also present this character, and the constitutional symptoms point rather to a tumor of malignant type. The tumor is very large, indeed, and I doubt whether a fatty tumor would have attained such a size in so short a time. Now the question of the removal of such a tumor is one of very great importance. Judging from its size and rapid development, and taking into consideration the fact that it sprang from the mesentery, it is very probable that the adhesions were very great—so great, in fact, that it would have been impossible to remove that tumor without killing the patient on the table. The shock would be so great, and the tendency to hemorrhage so great, the number of vessels to be tied would have made the operation so tedious as certainly to impair the life of the patient. I

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would have been more satisfactory if the doctor who made the postmortem had also removed the ovaries and uterus so as to show the condition of the appendages.

Dr. Y. H. Bond.—I do not propose to make any extended remarks on the subject, but it does seem to me that the practical question involved, after having opened the abdomen and ascertained the nature of the this tumor, was whether it would not have been better to have resorted to every means to effect the removal of the tumor.

The evil existed; there was utterly no hope if the tumor was permitted to remain, and it does seem to me that the conditions justified extreme measures looking to the removal of this growth. For we know very well that the patient had but a very short period to live if the tumor remained, and it seems to me that the proper thing to have done would have been to have made a positive effort to have gotten rid of the tumor, even though the patient may have perished on the table, unless there were positively contra-indicating circumstances.

Dr. G. Hurt.—The propriety of undertaking the removal of a tumor of this kind would depend a good deal upon the judgment of the operator at the time, as to whether it was not a useless undertaking. When the surgeon felt satisfiied in his own mind that although it was possible to remove the tumor his patient would die under the operation, should it be expected that a surgeon would jeopardize his reputation as a surgeon simply for the purpose of removing a tumor that offered no hope for the recovery of the patient.

This looks to me like a fatty tumor. Most fatty tumors are nodulated, are they not? And perhaps it is almost a bloodless tumor. But, if before the removal of this tumor was attempted, it was discovered that it was a fatty mass and a growth springing from the mesentery, the question would arise, how much of the mesentery remains? And, is it possible for the patient to survive even if she should survive the operation. Perhaps the sources of assimilation and nutrition would be so involved in the extirpated mass that there would be no chance, she would have no hold on life. I think that is altogether probable.

I think, perhaps, the tumor may have been removed if the doctor had taken it out piece meal, but had the patient survived the operation, which I question, she probably would not have lived longer than she did live, with the tumor unremoved.

Dr. Bond—I did not intend my remarks to be considered as a criticism upon the course pursued by Dr. Gregory in this case. I simply mention it as a principle of conduct. Of course, the peculiar circumstances, which could be appreciated only at the time of the operation, would determine that question, but I felt that the principle to be carried out, if it was at all possible, would have been to have removed the tumor.

Dr. Brokaw, Jr.—Did Dr. Meisenbach give it as his opinion that this tumor was possibly malignant—possibly a sarcoma?

Dr. Meisenbach.—I stated that the history of the tumor, the rapid development pointed that way.

Dr. Brokaw.—If I understood Dr. Gregory correctly he stated that it took about four years for the tumor to develop. Now, it is a large tumor to attain that size in that length of time. I think, perhaps, the tumor may have undergone sarcomatous degeneration at some points, but I hardly think it is a malignant tumor.

Dr. William Johnston.—The first gentleman, Dr. Borck, put a very pertinent question, and he seemed to think that it would not be a very difficult question to determine the nature of a tumor before the abdomen is opened. The great Velpeau was so mistaken that he opened the abdomen and found a child. When a man makes an assertion that he can determine what is within the cavity of the abdomen before he looks in, an overwhelming majority of surgeons will find themselves at fault.

In the next place, the gentleman who presented this tumor, states the condition of his patient as pulseless, prostrate, almost at the

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point of death; respiration was exceedingly difficult. Now, gentlemen, under those conditions if you attempt to administer chloroform or ether, the wonder will be if your patient does not die then. We all know that when a patient is chloroformed or etherized, there is a deficiency of oxygen in tho blood, and without this we can live but a short time.

If this patient was in the condition that Dr. Gregory states to this society, she would certainly have died had he attempted to remove the tumor. Whether under the circumstances it is best to operate for the removal of the tumor or leave it, is a question which every gentleman who is called upon to treat such a patient must decide for himself.

Dr. Gregory.—Before beginning a surgical operation I have an understanding with myself that it will be possible to complete the procedure without killing the patient. When in the progress of an operation I become convinced that to complete it will kill the victim, I stop, if possible.

Two of my critics think the tumor ought to have been removed at all hazards, as death was inevitable. Since the day of my sad experience I have often thought so myself, my feelings have been harrowed not a little, solace only coming by returning in my thoughts to the actual moment of the operation, when I had decided not to proceed. I have heard that responsibility was "old fashioned", but I am not prepared to doff the old garment. Too often, I read, the "operation was a success, but the patient died". I was present and had the responsibility of the procedure. My critics were not there. Well do I remember the far away strictures in the case of President Garfield. The old saying "easier said than done" is too often forgotten.

When Dr. Geelick, who with Drs. Haskill and Gerkies were sharers in my responsibility, brought me the specimen, what was my first question, over-wrought as had been my feelings for several weeks. It was, could the mass have been removed and life saved? His answer was, impossible, and now that I have the growth before me I am sure my action was right.

As to the declaration of one of the speakers, that the tumor ought to have been diagnosticated before opening the abdomen, I would say he was not there. Again, the touch has not been born that can always distinguish fluctuation from elasticity; but yesterday I thrust a groved needle into a dense fatty tumor, supposing it to be a cyst.

God only knows how I have been disciplined by my reflections since the day I attempted the removal of that tumor. I realized fully when I closed the abdomen, that I sealed the fate of the sufferer. I am sure no sensitive nature on earth could have felt more keenly. I have felt it every day and night since that hour, often asking myself, should I have gone further? Might not a little more courage have reclaimed a human life? Then would the thought pillow my aching head, viz., that I acted on the moment upon my best judgment. Relief has come at last.

I do not know how much importance attaches to a day or a week of life. Who has a right, or would presume to estimate its value, a soul, or a fortune may be at stake. "Life is short". Life is limited at best. God only knows the value of the weeks vouchsafed to our poor patient.

Dr. Hendrix read a paper on Cholera Infantum.

Dr. Y. H. Bond.—The subject of this paper is one of the most important that could possibly have been presented to the profession. The subject is engrossing the attention of the best men in the country, and so far as material progress has been effected. The method of treatment announced by Dr. Hendrix is new. I hope the society will indulge in some expression upon the subject.

Dr. I. N. Love.—What was the temperature of the patient?

Dr. Hendrix.—103°.

Dr. Love.—The child had been sick one hour I think?

Dr. Hendrix.—The watery evacuation commenced one hour before, how many had occurred I do not know.

Dr. Love.—A gallon and a half of ice water was given within three hours, and much

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of this was rejected. I think, Mr. President that even if the case reported be a typical case of cholera infantum, the use of cold water in that case would not establish as a fact that it would invariably be safe to give infants in the collapsed stage of cholera infantum so abundantly of ice water. We know that in many of these cases the temperature is high, 105° or 108°; in others, the temperature is low. The indication is to stimulate and secure reaction, and I know that in many cases a hot bath with whiskey in it is indicated.

The principle point that the doctor makes in his paper is that as a preventer of cholera infantum we should give ice water freely. I think that the laity do not give infants a sufficient quantity of cold water. If the child expresses a desire for a drink they fill it up with food, they give it the bottle, they give it milk, when, as a matter, of fact it ought to have water.

In the majority of cases of cholera infantum, like cases of cholera, there is a history of some disturbance of the alimentary canal, a disturbance of digestion; the majority of cases of cholera infantum have the same history. I think it is a matter of vital importance to see that children are not stuffed.

Before accepting the doctor's method I should want to see a number of cases, of varied character in the collapsed state of cholera infantum, cured and promptly relieved as by magic by drinking of large quantities of water. It may be that the doctor is right.

We know, of course, that in disturbed conditions of the alimentary canal the intense heat and congestion, superinduced in some instances by chilling, as well as by heat, creates such a disturbance of the vaso-motor system, the sympathetic system, as to create a tendency to the throwing out or transudation of the serum of the blood directly through the intestinal walls.

Dr. Hornsby.—I do not know whether the doctor intended to impress the fact that a gallon and a half of water had been given. I do not know whether he intended to imply that therefore there was virtue in the use of that amount of water. I would question the advisability of taking one case for a precedent. I have seen a number of cases of this trouble, and I know that some of the children that I have seen would not have stood the severe test of vomiting a gallon and a half of water. It seems to me that it is carrying this treatment too far in children that have reached a point in this disease that I have seen. I would like to ask the doctor if it would not have served his purpose to administer cracked ice, if he wanted cold.

Dr. Hendrix.—The object is to extract the heat from the body, and it is better accomplished by giving the ice-water.

Dr. Hornsby.—I saw a case last summer which seemed to be almost dying. I do not think the child would have survived the vomiting. I administered cracked ice and I think I reduced the temperature as quickly as the doctor could have done with ice water. The child got well.

Dr. Bond.—I see Dr. Miller present, and as he has had considerable experience in these cases we would like to hear from him.

Dr. Miller.—I do not know that my experience will be of special value. I have listened to the paper with a great deal of interest, and it occurred to me that the condition which the doctor stated he had overcome by the administration of large quantities of ice-water could have been equally as well effected by the use of broken ice, which has been my practice for years. There was one cause of the disease which the doctor failed to enumerate, and that is tyrotoxicon, a crystallized ptomaine generated from the decomposition of casein, which was first drawn to the attention of the profession by Prof. Vaughn, of Ann Arbor, Mich. It seems that there is a germ which causes this disease.

Dr. Hendrix.—Dr. Love stated that I had based my suggestions upon the result in one case. If he had followed the paper carefully he would have seen that I stated that I had for several years treated all the cases which came under my care by this method, and that the case mentioned was only a typical one. I have been treating these cases by this method

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for seveal years and no ill effects have followed it. The point I wish to make is this: The fluid elements of the blood are carried off, and it is necessary that they should be restored, and by giving water, some of which must retained, we accomplish this end; the blood gets back its lost fluids, and the normal condition is restored.

The American Association for the Cure of Inebriates.

The American Association for the Cure of Inebriates held its semi-annual session in Brooklyn last Wednesday. Several papers were presented. One, by Dr. T. L. Wright, of Bellefontaine, Ohio, on "Points Touching the Medical Jurisprudence of Alcoholic Inebriety," referred in large detail to the physical, mental and moral disabilities caused by alcoholic indulgence, and asserted that these were only the advance guard of pernicious results.

Dr. C. C. Fite, of Knoxville, Tenn., offered a paper on "The Prohibition Question from a Medico-Legal Standpoint," in which he predicted that long before prohibition becomes general, the vital issue—the prevention and cure of drunkenness—will be reached by society regarding habitual indulgence in alcohol as a disease, and, denying the right of any individual to further a tendency, hereditary or acquired, toward the inevitable physical and mental damage which excess in drinking involves, insisting that he shall be protected—and with him those who, otherwise, might inherit the baneful effects of his excess—by treating or caring for him as are the insane, or the victims of other disease. The paper was a logical, forceful plea for the need of to-day—proper asylums where the alcoholic inebriate can have that rational scientific treatment his case demands. Dr. J. B. Mattison, of Brooklyn, read two papers, "The Ethics of Opium Habitues," and "Antifebrin, vice Opium, as an Anodyne." In the former, he asserted that several years exclusive professional experience among a large and enlarging number of opium habitues convinced him that the popular idea that all men who use opium are liars, is a mistaken one. He argued that the prevalent opinion, uncharitable and untrue, of an opium habitue being merely the victim of a vicious indulgence was a leading factor in his desire to shield himself from censure, and claimed that a more rational and right appreciation of the situation, regarding such patients, with certain exceptions, as creatures of conditions beyond control, would be most helpful against the protective temptation to untruth. Besides, a more liberal and correct opinion on this score would have an important bearing on their medico-legal status and treatment. In his second paper, Dr. Mattison referred to the recent triumphs of analytical chemistry in giving the profession such valuable hypnotics as amylen hydrate and sulphonal, and noting the far-reaching value of any drug that will take the place of opium—which, while so great a blessing is so often a bane, expressed his belief that the new anodyne, antifebrin, was the richest addition of modern times to the therapeutics of pain.

SELECTIONS.

SIMPLE AND RAPID STAINING OF THE TUBERCLE BACILLI, FOR THE GENERAL PRACTITIONDR.

BY H. P. LOOMIS, M.D., NEW YORK.

Although the causal relation of the tubercle bacilli to pulmonary phthisis may be questioned by some, no one, we think, can deny the diagnostic importance of their presence in the sputum.

The ability to recognize them enables the physician to diagnose the character of pulmonary disturbances earlier than he can possibly do it either by physical signs or any other symptoms. If the technique of the staining of the tubercle bacilli can be reduced to a simple form, so simple that no special technical staining is necessary, then I believe that this most important aid to diagnosis would be as constantly employed by the

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practitioner as the chemical and microscopical examination of the urine in suspected cases of Bright's disease.

The method at present generally adopted in the laboratories—the Koch-Ehrlich method—is a complicated process, requiring much practice and judgment, especially in the decolorization by nitric acid; it is not consequently adapted to the general practitioner's use, and will yield reliable results only in the hands of experts.

The belief that any technique which is simple and rapid, and reduces the staining of the tubercle bacilli to a mechanical basis, would be no use to the general practitioner is my reason for presenting the following method, which I have used for some time with uniformly satisfactory results.

While working with Professor Koch last spring, I found that in his personal examinations he made use of a solution of fuchsine known as Ziehl's solution, and hardly ever had recourse to a double staining.

To an expert, this gives without doubt the quickest staining possible, but because of the weakness of the solution, if made according to Ziehl's formula with the ordinary fuchsine purchased in this country, and of the lack of a contrast color, it does not yield satisfactory results to others. Making use of the principle whichZiehl has incorporated in his solution viz, that carbolic acid can be substituted for aniline oil, I first stain the bacilli with a very strong solution of carbolic fuchsine, and then make the contrast staining by what is known as Fraenkel's solution, which combines the decolorizing and dyeing in one process.

This furnishes a specific staining for the tubercle bacilli—a deep-red color; the other elements in the sputum, the putrefactive bacteria, the pus-cells, the epithelium, taking the second color—blue.

The advantages of the method which I propose, are these:

1. Simplicity; one solution is poured on the sputum and then the other, with no judg ment necessary as to the amount of staining or to the decolorization; this makes the process simply a mechanical one.

2. Quickness and precision, the whole process occupying but two minutes.

3. The great intensity of color with which the tubercle bacilli are stained.

4. The solutions keep indefinitely,especially the carbolic solution, which cannot decompose like the aniline water solution of fuchsine; they are therefore always ready for use.

THE METHOD OF PREPARING THE SOLUTIONS.

First the fuchsine solution. 1, Pour into a small bottle of alcohol, say a four-ounce bottle, enough fuchsine to form a well-marked layer over the bottom of the bottle, or, in other works, more than enough for a saturated solution. 2, Let it stand for twenty-four hours, shaking the bottle from time to time. 3. Into a four-ounce bottle, containing a five per cent. aqueous solution of carbolic acid, pour enough of the first solution to produce a distinct precipitation of the fuchsine, say, about ten or fifteen cubic centimetres—the exact amount is not important. 4, Shake a few times and set aside for twenty-four hours. This is the carbolic solution of fuchsine to be used.

Second, the methylene-blue solution. Put into a four-ounce bottle,

	Parts.
Alcohol, - - - - - -	30
Distilled water, - - - -	50
Nitric acid, - - - - -	20

and add methylene-blue until the solution is more than saturated.

THE METHOD OF STAINING THE SPUTUM.

1, Prepare two cover-glasses in the ordinary way, by placing a small portion of the suspected sputum on one cover-glass, and, by means of the other, pressing it out between them into a thin layer; on sliding the cover-glasses apart, a thin film of sputum will be left on each cover-glass. Allow the cover-glasses to dry, and then, holding them firmly with a pair of forceps, prepared side uppermost, pass them rapidly three times through the flame of a spirit-lamp. 2, Hold cover-glass as before, and pour on it a few drops of the fuchsine solution. Then warm the cover-glass over a spirit-lamp until steam arises, being careful not to allow the fluid to boil; now

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let the solution on the cover-glass cool. 3, Pour off the fuchsine solution. 4, Pour on the cover-glass the methylene-blue solution, and after half a minute or so, the exact time is not important. 5. Wash off the stain carefully with running water (a wash-bottle is convenient). 6, Dry the surface of the cover-glass which does not contain the sputum. 7, Mount on a slide in water and examine.

A little practice will enable one to carry out this simple technique with great rapidity; the only difficulty is in preparing the solutions at first, but, as they will keep for months and are always ready for use, this is not of much moment. One great advantage to the practitioner will be the doing away with all dishes, acids, etc. The two bottles always stand ready, and when necessary the sputum can be examined while the patient is in your office. To emphasize the quickness of the process, the whole formula can be stated in four lines.

1. Pour your fuchsine solution on prepared cover-glass.
2. Heat and then allow to cool.
3. Pour off solution and pour on methylene-blue solution.
4. Pour, wash this off, dry, and mount in water.—*Med. Rec.*

SALICYLATE OF MERCURY.

Dr. Henry T. Inge, of Mobile, Ala., has been investigating the therapeutic value of salicylate of mercury. We clip the following part of his paper from the *Atlanta Med. and Surg. Jour*:

I have used the salicylate of mercury in twelve cases of syphilis, and in only two instances did I see any material improvement.

One was a young man with no external appearance of disease, but who had severe periosteal pains, especially in his feet. I gave him the twelfth part of a grain three times a day, and in three days he showed improvement that I couldn't get with the bichloride. The second case was that of severe headache after five years of inoculation. The pain disappeared after four day's use of the twelfth of a grain three times a day.

I have used this drug also in a few cases of non-syphilitic skin eruption with some success. I had been treating a case of erythema circinatum for several weeks without any appreciable effect. I ordered an ointment in the strength of ℈ii to the ounce of lard, and the effect was remarkable. The patient was a farmer in good health; he stated that he had the eruption before, but that it would disappear until the present case which rendered him unable to work. This is a rare form of skin disease, and the only case I have ever had, and I think its cure with this agent worthy of remark, owing to the fact that I had previously used other forms of mercurial inunctions, chrysophanic acid ointment, oxide of zinc, and in fact every thing I thought could possibly cure the trouble. I have used as a powder to apply to herpes so often on the glans prenis and propuce the following: R. Hyd. Salicyl. grs. x, oxide of zinc ℈i bismuth sub nit. ʒiss. Have never had any trouble with herpes, as this powder soon dries up the eruption. The salicylate of mercury has proven of undoubted value in eczema. The worst case of vascular eczema I ever saw proved amenable to its use.

Female prostitute, twenty years of age, has had eczematous eruption on left leg for three years with a deep and unhealthy ulcer on the external malleolus. Started treatment Feb. 12, with the following prescription: R. oxide of zinc ʒvii, salicyl. hyd. ʒi; used adhesive strips above knee and covered entire leg with roller bandage. Dressed limb three times per week, using above powder freely. Discharged her well March 3. Time will prove the ultimate result.

I had also a good cure in a case of eczema cruris in a negro woman, aged 45 years. The disease was of three years standing, situated on the anterior part of the leg. She had been unable to walk for fifteen months; and had tried every remedy she had heard of to no purpose. I gave her this prescription to be applied twice a day after bathing the parts with warm water and castile soap:

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R. salicyl. hydrarg. grs. xii, liq. picis. ʒiii, cerate adipis ʒi. The effect was very marked, for in thirty days there was not an unhealthy spot on either leg, nor has the disease returned, although it was five months since that she was treated. I have tried this remedy, however, in a great many skin troubles where it had an appreciable effect. I have used it in diarrhea of children, when the stools were of a greenish, muco-purulent character, with the best success, giving the fortieth part of a grain three times daily. My attention was directed to its use in such cases by the fact that I had used the bichloride with some success. The salicylate of mercury combined with belladonna and other remedial agents, forms an excellent combination for applying it to the hands and feet when there is a superabandance of perspiration.

The much-lauded bichloride of mercury, as an antiseptic in the treatment of surgical cases, will, in time, give place to the salicylate. From its name we see that it combines two of the most valuable antiseptic agents. The mercury, which is a form of the acid nitrate, is precipitated with the salicylate of potassium and water, forming a new chemical agent different from either in decided chemical reaction, but preserving the antiseptic properties of both. In this, the day of progress, when all diseases are being investigated with a view of finding the germ, all remidial agents increase in value as their efficiency in destroying micro-organisms is proven. Soon their value will be solely for their ability to destroy germs. When that day comes, I shall claim a high place for the salicylate of mercury.

THE INFANT-FOOD PROBLEM.

BY WM. B. ATKINSON, A. M., M. D.
Professor of Diseases of Children and Sanitary Science in the Medico-Chirugical College, Philadelphia.

To the general practitioner everywhere, there constantly comes the question, What means shall be employed to prevent the terrible mortality among infants deprived of their natural food, the mother's breast-milk? As it is in very many cases impossible to place the child outside the walls of a large city, this want of proper hygienic surroundings acts as one great factor in the production of disease. But perhaps the most active cause of disease is the exhaustion of the vital powers from the want of those articles which, being properly and readily assimilated, aid to maintain the body in highest and healthiest condition. We all know that, other things being equal, that child which has been able to keep its system in the best state, its blood rich and pure, its muscles plump and firm, is sure to pass through an epidemic of children's affections either entirely unscathed or suffering only from a slight attack, readily throwing off the disease and never being troubled with the sequelæ.

Defective nutrition, then, is the predominant factor in the causation of the fearful mortality everywhere observed among children. We need only point to the statistics of children's hospitals, foundling asylums and similar institutions to show the truth of this proposition.

To us, as physicians and sanitarians, as citizens earnest for the welfare of this great Republic, this comes with powerful import. An additional fact also appeals to us when we learn that the vast majority of these are offspring of the native-born, while those who survive are largely the children of foreigners. This is shown by the valuable statistics of such investigators as Dr. Nathan Allen. Though we are compelled to admit that other causes, and one a very potent factor, produce the great disproportion between offspring of natives and foreigners, yet it must be admitted that the truth of our original proposition still is evident, that defective vitality causes a vast majority of deaths among infants, and even in children of larger growth.

The latter fact is constantly shown by the great mortality which prevails when, by reason of short crops or other causes, the people are unable to procure the food needed to maintain their systems up to par and thus resist the inroads of disease.

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It goes without saying that the infant should be raised on its mother's milk whenever possible. When, for any cause, this fails, then comes the question, what shall be the substitute? Abroad the milk of asses and goats is in quite common use. Cow's milk, being that most easily obtained, is most largely employed in this country. This being the fact, we next come to the consideration as to how the two kinds of milk differ, and what is needed in order to cause that of the cow most nearly to approach that of the human being.

Cow's milk contains more proteid matter, more fat, more mineral matter and less sugar, and as a rule, in health human milk is alkaline, while cow's milk is often slightly acid. One special difficulty with cow's milk is that its casein is more or less likely to form an insoluble mass by contact with the gastric juice, while the casein of human milk is in part a peptone, and forms a very delicate coagulum when in contact with the gastric juice.

The effort is always to produce a food for infants closely resembling in its composition the mother's milk, and the nearer this is reached in all its details, the more surely will such food prove wholesome and valuable to the infant.

Our idea of a standard infant food, then, would be produced as follows: Be sure to obtain the milk of a healthy cow. Just here we may premise that we do not believe in the common fallacy, "one cow's milk." The mixture of the milk of several healthy cows is more sure to give an article of real value. Undoubtedly, many in this audience can substantiate the claim that it is most usually the pet cow, from which is obtained the milk which is put up for the sick baby, that receives all the banging, hurrying and pelting and, as we all know, is thus likely to yield a milk which may actually be poisonous in its nature. The best combination would be pure milk diluted with sufficient pure water to reduce the relative proportion of albuminoids and mineral constituents most nearly to that of human milk, then partially peptonize or digest it, and finally add a soluble carbo-hydrate with sufficient alkali to produce as close a resemblance to breast-milk as may be. We must not forget that peptonizing milk does not relieve us of the need of being sure that the milk is at the outset pure and fresh.

The milk supply of large cities has now become one of the great problems of the day. Churned in the cars to the city, then more thoroughly churned in the wagons over the wretchedly paved streets, distributed in many cases from doubtful cans by persons of much more doubtful appearance as to their own cleanliness; the flavor often aided by the puffing of a cigar or filthy pipe on the part of the distributor, the article is received in many cases in a receptacle of equal doubt as to cleanliness. It is placed, perhaps, in a food chest or so-called refrigerator, exposed to the atmospheric contact of other articles of food. Is it to be wondered at that the milk becomes of a very doubtful form as to its propriety as an infant aliment?

To a certain extend, these objections are met by the new plan of delivering what is called "whole milk." The milk is very carefully placed in glass jars immediately after being drawn from the cow, these, being quite full, are hermetically sealed so that there can be no opportunity of churning or adulteration or the absorption of odors or disease germs. For children who have passed the age of infancy, I have long been in the habit of urging the employment, particularly during hot weather, of what is called "evaporated milk." Its claims were that it was the milk from healthy, well-fed cows and, being of a density greater than cream, churning and souring were less likely to occur during its transition to the city. Again, it was very much less ready to absorb or appropriate the odors, etc., to which it might be subjected. I have found this more easily borne by the child, and repeatedly I have been compelled to substitute it for the "condensed milk," where a certain proportion of sugar is added in order to preserve the article.

For these reasons, Prof. Vaughan urges

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he use of dried milk solids, that is, they can ıe transported without injury from any disance and, if properly prepared, may be kept vithout putrefaction occurring. Now, if uch pure milk from perfectly healthy cows vere partially predigested by the process of ıeptonization with fresh pancreatine, the emperature sufficiently raised to destroy the erment, then reduced to a powder by evaporaion, and to this dextrine added, thus supplyng the carbohydrate, we would then come as ıear the production of a proper food for nfants as might be possible in the abscence ıf the breast-milk.

By recent researches, we have been taught hat dextrine is the best form of carbohydrate, ıs it is non-fermentable and does not irritate he stomach of the infant, is easily assimiated and, unlike cane sugar or maltose, is not ikely to take on acid fermentation. Roasted wheat flour has long been employed and ecommended as an article of food for infants, ınd particularly where diarrhea is present. The reason of this is because this process onverts the starch of the flour into dexrine.

The malt sugar or so-called "Liebig foods" ıre no doubt often valuable, particularly in nfantile constipation, for their laxative ffects, but are extremely liable to continue ı diarrhea or increase it. When these are ısed for their laxative effect, it is safer to ıse them alone rather than with milk, lest heir fermentative tendency be aggravated by he presence of too great a quantity of albuninoid matter.

I am incited to this remark by the remembrance that the "Liebig foods" do not of themselves meet the requirements demanded for infantile nutrition, unless with the addiion of cow's milk. By an examination of he analyses of such mixtures, we find that hey add no essential to cow's milk; nor do hese foods act chemically upon the casein, ıor physically by reason of their solubility; ınd, as I have before remarked, they may ;ive rise to disorders of digestion in consequence of the readiness with which they take ın fermentation.

Farinaceous foods are of course out of the question, because of the absence of ptyalin in the secretion of the salivary glands in the earlier years of infancy. The addition of starchy matters to cow's milk with the purpose of rendering the coagulum less dense and more easily broken up in the stomach, as has been recommended by some authorities, is wrong in principle; it really adds an indigestible element, which cannot fail to act as a foreign body sure to produce fermentation, acidity, diarrhea and the usual train of evils.

The milk foods, when diluted with water in accordance with directions, should correspond in nutritive value with human milk. Now, that this correspondence should be more nearly perfect, they should also be partially predigested or peptonized, in order that the casein may be rendered more acceptable. It is also necessary that sugar in some form should be added.

In peptonizing milk, it is of the greatest importance that the pancreatic extract which is employed should be pure and fresh. The odor of some digestive ferments as furnished by the stores is such as to give rise to the suspicion that they are already assuming the putrefactive tendency. In fact, it is a very difficult matter to preserve them, as it is well known that the products of the pancreas are much more readily decomposed than any known animal substance. Hence the greatest care will be necessary that there shall not be the slightest possibility of the presence of putrefactive germs in any of these articles that may be employed to aid in the preparation of the diet of infants. The peptonizing of milk, although apparently a very simple matter as practiced in the laboratory, yet is scarcely feasible in the household.

Another point is of great importance. Malt sugar is eminently prone to absorb moisture, and hence it should not be combined with dried milk and then put in bottles or other form of packages for family use, because, as these packages are only partially used at one time, the balance is extremely liable to absorb moisture, resulting in fermen-

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tation, and this is more especially the case in hot weather or when kept in a hot room.

We cannot too strongly urge upon all who are compelled to prepare food for infants the great, the imperative necessity of using only water that has been boiled. To the medical man, the reason is plain, yet it would not be amiss for him to explain in each instance why this should be done. Just here it is equally important to see that the water is not cooled by the addition of ice, as we may thus return at once to the water the very organisms which the boiling was intended to expel. I am impelled to this remark by the remembrance of an inspection just made for the State Board of Health of Pennsylvania. The subject of complaint was the ponds from which the ice was obtained to supply the demands of a large town. These ponds were filled with water from a stream really nothing but a drain for a full grave-yard, one or more slaughter houses, a large number of cesspools which were in constant use, and a large area of swamp lands.

In diluting any form of infant food we should give positive, definite quantities. Undoubtedly all of us have encountered many instances where the child was really starving, while apparently receiving a large quantity of fluid. The fact is that the dilution had been carried too far.

It is unnecessary for me to occupy your time with further points as to times for feeding, nor of necessity for using bottles, etc.

Before closing, I may remark that, in my investigation of foods for the preparation of a paper which may be read elsewhere, I received from my friend Chief Medical Purveyor Baxter, of the United States Army, a tabulated analysis of some fifteen forms of foods. Of these, only four contained more than 10 per cent. of nutritive material, thus showing that even here we are likely to be deceived, and to the employing an article as useless for its proposed purpose as the too largely diluted food of the infant already mentioned.

In conclusion permit me to say that it has long been my custom, not only in my practice, but also in my teachings, to urge the giving of less medicine, using it only when imperatively demanded, and to insist upon the value of proper hygiene and proper nourishment, believing that these alone, in many cases, will at once place the child on the road to health, and if persevered in will, as a rule, maintain it there.—*Jour. Am. Med. Ass'n.*

HABIT CHOREA AND ITS TREATMENT.

In a paper read before the Philadelphia County Medical Society, May 6, Dr. De Schweinitz says: "As is well known there are certain local choreas for which no definite cause can be assigned, and in which, as Dr. Wood puts it, the movements closely simulate purposive acts.

A child suffering with this malady—for it usually occurs in children, especially girls—is brought for treatment because it has adopted some trick or gesture. An eye may be rapidly winked, or the eyeball rolled upward, or the brow wrinkled, or the facial muscles contorted, or, it may be, the shoulder is shrugged, or a forward movement of the head or jaw indulged in. At first these movements are under control of the will, but gradually become more and more obstinate and more and more aggravated, especially when attention is called to them, and sometimes the variety of the performances in a single day is truly remarkable. This affection has been described by Dr. S. Weir Mitchell, and from him has received the name Habit Chorea.

Continuing, Dr. Schweinitz gave in detail the history, diagnosis, treatment, and ultimate results in seven cases which he summarized as follows:

These cases suffice to give an idea of what service the correction of the errors of refraction was in the treatment of this disorder. In three of them the habit spasm, as Gowers would say, had existed for a long time, and judicious internal medication and proper hygiene had failed to achieve the desired result, which result was attained after the eyes had been thoroughly treated and

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orrected. In two others the constitutional id eye treatment were begun simultaneously, id the rapid improvement showed the value f this combination. In one instance the ye examination and the correction of the nomalies of refraction were declined, and ie habit still continues. In another, the earing of glasses was the only course pur-ied, and the result was most favorable. In l the cases where errors of refraction ex-ted, these were either hypermetropia or hy-ermetropic astigmatism; in two, the errors ere 2 D. and more; in three, less than 1 D., id in one the eyes were emmetropic. It is ot unworthy to call attention to the fact iat so low an error as 0.50 D. may prove an xciting cause, the removal of which aids in storing the patient to a normal tone.

One case was especially interesting because general chorea disappeared, and in its place ame a habit chorea—for there is no doubt iat the disorder in this patient is correctly classified—exactly as Dr. Mitchell has ob-rved, in a few instances, these cases lapse ito well pronounced chorea of the ordinary pe. It is further useful to observe that the yes in this case were emmetropic, but that heu the existing spasm of accommodation id phlyctenular conjunctivitis had disap-eared under the use of atropine, the pa-ent made rapid strides along the road to re-overy.

This leads me to speak of the value of osely observing the condition of the con-inctiva, especially of the retro-tarsal folds, this malady. Years ago, the late Prof. Fr. orner called attention to the fact that chil-en, when first they attended school, were metimes observed to be given to unduewink-g of the eyes, and that without the presence strong light. As an accompaniment, there ere often movements of the muscles of the ce, neck, arm or leg. In these cases the cal cause was most often found to be some sorder of the conjunctiva, especially follic-ar catarrh, blepharitis, or an anomaly of re-action, usually hypermetropia. Indeed, in few instances, the local condition was man-estly the exciting cause of a chorea minor. Treatment of the conjunctival catarrh and correction of the hypermetropia, removed the difficulty.

Not only may the local conjunctival disturbance and refraction errors exist, but there may be also imperfect equipoise of the eye-muscles. It is scarcely necessary to refer to this as a possibly important factor. In recent times, much graver nervous disorders have been attributed to such insufficiencies of the ocular muscles, and for their correction by surgical and other means, most brilliant results have beon claimed.

It is very far from my intention to give an undue importance to these errors of refraction and inflammation of the conjunctiva as exciting agents in the causation of habit chorea. I am not unmindful of the large number of instances that may be directly traced to nasal disorders, to diseases of the pharynx, nor do I forget that other large class to which no adequate cause can be assigned. I only wish to recall to the memory the value of searching for these among the other causes and to emphasize the fact that, if the habit spasm especially affects the muscles of the face, particularly those around the eye, the following points deserve attention:

1. The condition of the refraction and the muscular balance should be carefully examined, and if found abnormal, corrected.

2. The anomaly of refraction should be determined under complete ciliary paralysis and the full, not partial correction ordered.

3. This correction should be employed in conjunction with proper internal medication and general hygiene, and not to the exclusion of these measures.

CASE OF LEUCOCYTHEMIA TREATED BY CHICKEN BLOOD.

BY M. CZARTORYSKI, M. D., STOCKTON.

About a year ago an Italian girl, æt. 8 years, Letitia Martinelly, was brought to me from San Francisco by her parents, suffering and in the last stages of that almost incurable disease, lecocythemia. As the girl had

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been previously attended during the preceding five years by many of the most eminent practitioners of San Francisco, they will undoubtedly feel interested in my successful treatment of the case and the perfect restoration of the patient to health.

Some long forgotten therapeutic points out of the works of Avicenna have most materially helped me to the successful issue. When the girl came under my professional care she was almost "*in articulo mortis*," a living, moaning skeleton covered with skin; there was the utmost anemia, debility, anorexia, dyspnea, cough, edema, extremely painful swelling of all the joints, stupor, and, in fact, a condition that no person could have survived a week. From the names of the eminent physicians who previously attended the patient, I knew all had been done that medical science could suggest, and that I was only called in to allay the suffering and distress.

The only remedy that had not been tried —transfusion—suggested itself to me, but not possessing the necessary apparatus, I concluded to use the next best substitute, one that had given the most marvellous results in cases of flooding or after excessive loss of blood.I had learned from the works of Avicenna, the Arabian medical sage of nearly 1,000 years ago, at the time I was studying medicine in the University of Breslau, Germany, that the fresh drawn blood of healthy poultry, chickens or pigeons, as it streams from the severed neck, beaten up in previously warmed coffee, wine, milk or warm lemonade (one or the other), well sweetened, was the method in those days of supplying blood. In cutting the neck special care must be taken that neither the trachea nor esophagus be injured, as the liquids from these may cause vomiting, and it must be done in a warm place and allowed to flow into cups or salvers which have been previously warmed.

As the father of the child was cook in a restaurant, the above remedy was tried, with the most gratifying results. The girl took willingly the blood of two chickens on the first day—one in the morning and one at night—on an empty stomach. The blood appeared to be immediately absorbed. The corpuscles of chickens are oblong, and, if I recollect rightly, only one eighth of the size of the human corpuscle, and are therefore more easily absorbed. The operation was followed in ten minutes or less by easy, quiet sleep. The girl took the blood of two to five, and even ten chickens, once or twice daily, and improvement followed from the first day. I relieved the cough with raw eggs, beaten up with honey and sherry wine. The girl was sponged once or twice a day with common grape brandy, in each of which a dram of the sulphate of quinine had been dissolved to overcome night sweats. For the enlarged joints, the lin. ammon. sap. camphor, with one-fourth lin. iodine. was ordered to be well rubbed in two or three times a day. Diarrhea and vomitingdisappeared absolutely withinthe first week of treatment, the only remedy used being compresses moistened with California brandy and teaspoonful doses of blackberry cordial.

Within four weeks there was general improvement; the child became lively. The fluid obtained from a needle prick in the finger showed no longer merely serum, but blood deficient in red corpuscles.

In February the child weighted twenty two pounds, in September she weighed 46 pounds and is now a healthy, romping child, full of mischief: No one would have thought it possible that she could have been so near death such a short time ago. She is now in the enjoyment of the best health, weighs 56 pounds, able to kill and dress chickens herself, and fond of taking a cup of coffee with chicken's blood in it.

[Dr. West, in his "Diseases of Children," mentions equally hopeless cases treated successfully by meat juice and powdered raw meat, which remained upon the stomach when all other food was rejected.—Editor.] *Pac. Med. and Surg. Jour.*

Abortion in Double Uterus.—Cases of double uterus are comparatively rare, but it is very probable that many of them are over-

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ooked. The following is a brief record of a ase which came under the observation of A. Donald, M. D., lately, and which presents everal points of interest.

Mrs. E., aged 28, consulted me on February 7th last, on account of severe metrorrhagia nd pain in the lower part of the abdomen. Menstruation, which commenced at 14, was egular and painless until Christmas, 1887. At that time she had been married for four nonths and, although there had been no cesation of menstruation, she fancied, from a eeling of weight in the pelvis and a slight ncrease in size, that she was pregnant. On December 26th she was attacked with severe pelvic pain and flooding. She states that mongst the clots expelled there was a large irmer body, and that soon after this came way the flooding ceased. Six weeks later nenorrhagia and pain returned, and continued ntil the day before I saw her.

Dr. Cullingworth very kindly examined the atient with me, and together we made out he following points. Vagina normal in ower part; at upper third a loose fleshy sepum was found, dividing the upper part of the agina into two equal lateral portions. Each ompartment contained a crevix, resembling he normal nulliparous cervix, each os exterum being closed. The bimanual examination was unsatisfactory on account of the tension of the abdominal muscles. Two uterine ounds were introduced, one into each cervix. n the first part of their course they ran arallel, but were separated by a septum; igher up they diverged, each tip running utwards from the middle line. No enlargement of either uterine cavity was made out. With the sounds still in position the abdomen vas now examined, and two distinct uterine undi were felt, separated by an interval of bout two inches, the tip of each sound being lainly felt through the abdominal wall. *Per ectum*, the lower part of the uterus could be elt, but the point of divergence could not be nade out.

It was thought advisable, before proceeding o more active treatment, to try the effect of est for a few days, and accordingly the patient was ordered to remain in bed, and the pain was relieved by opiates. On March 2nd the hemorrhage returned, and she expelled a solid substance about two inches long and one inch broad, which, on examination, proved to be a piece of placenta. After this her recovery was rapid; the discharge ceased, all pain disappeared, and a fortnight later she was going about as usual.

Remarks.—The malformation in this case was that known as uterus duplex bicornis. An important point is the fact that the vagina was double at its upper part but single below. In the majority of cases of uterus duplex bicornis the septum extends the whole length of the vagina, so that there are two external orifices. It is not difficult to understand how the abnormality should have been unsuspected both by the patient and by her husband; even on vaginal examination the case was one which might have passed as normal, for the septum was so lax that it was easily flattened against either side of the vagina, and in this way one cervix was covered up and concealed. A very similar case is described by Lumpe, who believed that the lower part of the septum had been detached by coitus. The cause of the hemorrhage was not quite clear at first, but, from the history, it seemed probable that it was due to some retained products of conception, and this view was confirmed later when the portion of placenta came away. At the time of examination, however, there was no hemorrhage, but both uterine orifices were closed, and there was no appreciable difference in size of the two uterine cavities. The continuance of menstruation during pregnancy in a double or partially double uterus is uncommon; it is noted only in two out of seventy cases collected by Kussmaul. From the patient's description of the expelled ovum I believe the abortion occurred at the third month. Statistics tend to show that abortion is not more likely to occur in a double uterus than in a normal one, but I am inclined to think that the abnormality in this case was alone the cause of the abortion, as I was unable to assign any other reason why it should have occurred. Possibly the continuance of menstruation may have had something to do with it.—*Brit. Med. Journ.*

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CASE OF SEXTUPLE PREGNANCY.—A woman, aged 36 years, was delivered on May 4, of six children—four boys and two girls—at a birth. They were born alive, though prematurely, but they all died in a few seconds. Their united weight was only three pounds thirteen ounces, and the length of their bodies, which were perfectly well formed, varied from 8 to 10 inches. The case, which is said to beat all previous authentic records of human fecundity, is vouched for by Dr. Francesco Vassalli, of Lugano, Switzerland (where the woman lived), who attended professionally on the occasion, assisted by Drs. Bianchi, Reali and Solari, of the same place. It has been stated that the woman had previously borne seven children in two batches of four and three respectively, but this is inaccurate. She was married only two years ago to a widower, aged 41, who had ten children by his first wife. There were no twins among these but it appears that he has five cousins—brothers—each of whom is the father of twins. A sister of the patient has also borne twins on one occasion. The patient herself in the first year of her marriage had a boy who is now 15 months old and in perfect health; she suckled him for 11 months, when she became aware that she was again pregnant. The catamenia had reappeared in the seventh month of her nursing, and the last period began on December 4, and lasted six or seven days; conception must therefore have taken place in the early part of January. The patient suffered severely almost from the first from weakness of the legs and vomiting, and in the fourth month the abdomen was as large as it usually is at full term. On the morning of May 4, (being about the 115th day of pregnancy) whilst doing some light outdoor work, she felt a sudden desire to empty her bowels, and, on sqatting down for the purpose, there was a gush of hot liquid from the vagina, which she recognised as amniotic fluid. She immediately went home, walking with much difficulty, on account of something which she felt protruding from the vulva. A neighbor was called in, who found a tiny fetus hanging by the foot, which was speedily delivered. All this occurred within a few minutes. Dr. Vassali was then summoned, and found the os only partially dilated, whilst an unruptured sac could be felt through it. There being no urgent symptoms, the patient was kept quiet, and, after passing a fairly good night, she got up the next morning to attend to her household duties, feeling quite well. Toward mid-day, pains came on with increasing violence, and she lost a good deal of blood. Seeing that abortion was inevitable, Dr. Vassalli thought it advisable to hasten delivery. He therefore punctured the membranes, and extracted a small fetus by the foot. After tying the cord, he followed up the placental end with his right hand, till he came to another sac of fluid; this he also punctured, and delivered a third fetus. Two more were extracted in the same way, the whole procedure occupying about two hours. Fresh hemorrhage now occurred, and the uterus did not contract. Dr. Vassalli therefore tied all the cords together, and made gentle traction, at the same time applying pressure to the womb. This failing, he introduced his hand into the uterus, and tried to bring away the placenta, which, however, he only succeeded in tearing, with the result of making the bleeding more alarming. Having no hemostatic at hand, he sent for assistance, keeping his hand in the uterus meanwhile as a plug. It was four hours before help arrived; the after-birth was then got away with some difficulty, a sixth fetus enveloped in its own membranes being found attached to it. The patient bore the trying ordeal very well, and made a good recovery. The heads of the fetuses were rather large relatively to the bodies, and the eyes were covered with the pupillary membrane. The genital organs were completely differentiated. There was only one placenta. The specimen has been placed in the museum of the R. Scuola Ostetrica, at Milan. Dr. Vassalli calls attention to the curious fact that Castagnola is rather remarkable for multiple births. From the official registers it appears that in a population of 585, from January 1, 1876, to May 10, 1888—that is 13 years and 4 months—there was a total of 247 births. Of these 228 were single, and 19 multiple, the latter consisting of 5 cases of twins, 1 of triplets, and the present one of sextuplets. The proportion of twin births, therefore, was 1 in 45, instead of Schroeder's estimate of 1 in 89; and of triplets 1 in 228, instead of 1 in 7,910.

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REPORT ON PROGRESS.

GENERAL SURGERY.

BY A. H. MEISENBACH, M. D.

I. RECTAL INSUFFLATION OF HYDROGEN GAS AS AN INFALLIBLE TEST IN THE DIAGNOSIS OF VISCERAL INJURY OF THE GASTRO-INTESTINAL CANAL IN PENETRATING WOUNDS OF THE ABDOMEN WITHOUT LAPAROTOMY.—*Med. News.*

II. TREATMENT OF WOUNDS OF THE ABDOMINAL VISCERA.—*Am. Jour. Med. Sci.*

III. THE RADICAL CURE OF HERNIA.

IV. REMOVAL OF A PORTION OF THE LIVER.

V. HEALING OF WOUNDS OF THE STOMACH IN RELATION TO VARIOUS SUTURES.

RECTAL INSUFFLATION OF HYDROGEN GAS AS AN INFALLIBLE TEST IN THE DIAGNOSIS OF VISCERAL INJURY OF THE GASTRO-INTESTINAL CANAL IN PENETRATING WOUNDS OF THE ABDOMEN WITHOUT LAPAROTOMY.

In the *Med. News* of May 26, 1888, Dr. N. enn gives an abstract of a paper read at the neeting of the American Medical Associaion (surgical section), May 9, 1888, as folowe:

The operative treatment of penetrating ounds of the abdomen complicated by viseral injury of the gastro-intestinal canal is ow sanctioned by the best surgical authorites, and may be considered as a well-estabshed procedure based, as it is, upon experiientation and clinical experience. A viscel wound of the stomach or any part of the itestinal canal, sufficient in size to give rise to extravasation into the peritoneal cavity, must be looked upon as a mortal injury, unless promptly treated by abdominal section. A number of well authenticated cases are on record where a wound in the stomach or large intestine healed, and the patients recovered without the intervention of surgery, but these instances are so few that practically the force of the preceding statement remains unimpaired.

Visceral injury of the stomach or intestines rarely gives rise to symptoms upon which the surgeon could rely in making a positive diagnosis. In the treatment of penetrating wounds laparotomy is resorted to either for the purpose of, 1, arresting dangerous hemorrhage, or 2, detection and treatment of a wound or wounds of its hollow viscera. The first indication is readily recognized, and the diagnosis not only justifies the operation, but imposes it as a stern duty upon the surgeon, from which he should never shrink. The recognition of the second indication offers greater difficulties, and the uncertainty of diagnosis which surrounds such cases is used as a sufficient argument by many in opposing the adoption of timely and efficient surgical treatment, and is responsible for the loss of many lives which might otherwise have been saved. The uncertainty of diagnosis must remain in the way of a more general adoption of laparotomy in the treatment of penetrating wounds of the abdomen treated by timid surgeons, and may lead to important medico-legal complications in the practice of bolder and more aggressive operators.

It is apparent that if some infallible diagnostic test could be applied in cases of penetrating wounds of the abdomen which would indicate to the surgeon the presence or absence of visceral lesions of the gastro-intse-

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tinal canal, the indications for aggressive treatment would become clear, and the medico-legal responsibility of the operator would be reduced to a minimum. As we can never expect by the study of symptoms, or by the ordinary physical examination, to fill this gap, I was induced to search for some reliable test which in such cases would prove that the penetrating bullet or instrument had injured the gastro-intestinal canal. It occurred to me that a wound in the stomach or intestine should be sought for in some such way as the plumber locates a leak in a gas-pipe. The first object to be accomplished was to prove the permeability of the entire gastro-intestinal canal to inflation of air, and the next step was to find some innocuous gas, which, when inflated would escape from the intestinal wound into the peritoneal cavity, and from that through the external wound, where its presence could be proved by some infallible test. Numerous investigators of this question have come to different conclusions, particularly as to the permeability of the ileo-cecal valve. We should *a priori* expect that air and gases, on account of their lesser weight and greater elasticity than water, could be forced along the intestinal canal with less force, and for that reason alone, if for no other, should be preferred to water in cases where it appears desirable to distend the intestine above the ileo-cecal valve.

I made a set of experiments, twenty-six in number, to demonstrate the permeability of this orifice to gases without rupture or injury of any of the coats of the intestine. I next demonstrated the safety of the procedure as a diagnostic and therapeutic measure, by showing that the resistance of different portions of the gastro-intestinal canal was about the same, and everywhere greater than was necessary for the forcing of the gas into all portions of the tract. This was established by a large number of experiments, using the manometer or mercury gauge to determine the exact degree of pressure. A number of experiments were also made to demonstrate the ability to distend the gastro intestinal canal by rectal insufflation of the hydrogen gas, preliminary to the practical application of the hydrogen-gas test as a diagnostic measure in penetrating wounds of the abdomen. These furnished only so many more demonstrations of the permeability of the ileo-cecal valve and the entire alimentary canal to rectal inflation of hydrogen gas. Many of these experiments were practised upon the human being.

Experiment LI. is particularly interesting. "I was desirous of experiencing myself the sensations which would be caused by inflation of hydrogen gas, and therefore submitted myself to experimentation. Under a pressure of one-half pound, nearly one and a half gallons of gas were inflated per rectum. The distention of the colon caused simply a feeling of distention along its course, but as soon as the gas escaped into the ileum, colicky pains were experienced, which increased as insufflation advanced, and only ceased after all the gas had escaped, which was only the case after an hour and a half. When the intestines and stomach had become fully distended, the feeling of distention was distressing, and was attended by a sensation of faintness which caused a profuse, clammy perspiration. A great deal of the gas escaped by eructation, which was followed by great relief."

The colicky pains which attend inflation of the small intestine by air or gas are always caused by the peristaltic action of the bowels in their attempt to expel their contents, as they always assume an intermittent type, and subside promptly after the escape of the gas. In none of the experiments did the pressure exceed a pound. The escape of the gas through the ileo-cecal valve, after distention of the colon, was easily recognized in every instance by a reduction of the pressure as well as by the auscultatory signs heard most distinctly over the ileo-cecal region.

The experiments also demonstrated the fact that inflation of the intestinal tract, in order to be safe and effective, must be done very slowly, under a low steady pressure, which will accomplish a great deal more than a higher pressure continued for a short time,

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and is attended by no risks whatever of causing rupture of a healthy intestine; and when cautiously practised can be resorted to, even in cases where the resisting power of the intestinal wall has been diminished by antecedent pathological processes.

The experiments further demonstrate the innocuous character of pure hydrogen gas upon the tissues of the body, since in none of them were any immediate or remote toxic effects produced. A number of experiments were made for the purpose of demonstrating the innocence of this gas, as well as its non-irritating character when brought in contact with living tissues, and also that the gas is promptly removed by absorption.

A set of experiments were finally made for the purpose of demonstrating the applicability of the rectal insufflation of hydrogen gas as a diagnostic measure in perforation of the intestine by gunshot wounds of the abdomen. They proved an infallible test in every instance. Contrary to the experience of other investigators, I found that fecal extravasation does not uniformly take place soon after gunshot wounds of the intestines, and in the cases where I observed it, some part of the colon had been wounded. Intestinal inflation, I therefore conclude, does not tend to increase the liability to this accident, and must, therefore, be looked upon as a harmless measure in this direction. Inflation as a preliminary measure greatly expedites the first step in the operation of abdominal section in cases where the intestine has been perforated or injured, as the gas which escapes into the peritoneal cavity separates the intestine from the anterior abdominal wall, and the incision can be made safely and rapidly without fear of wounding the intestine.

In order to guard against the accidental overlooking of a perforation after one or more openings have been closed, I think it advisable again to practise insufflation.

After a careful study of the subject of rectal insufflation of hydrogen gas in its various aspects, I do not hesitate to recommend its adoption in practice as an infallible diagnostic test in demonstrating the existence of a wound of the gastro-intestinal canal in penetrating wounds of the abdomen without resorting to an exploratory laparotomy.

In conclusion, I submit for discussion the following proposition:

1. The entire alimentary canal is permeable to rectal insufflation of air or gas.

2. Inflation of the entire alimentary canal from above downward through a stomach tube, rarely succeeds, and should, therefore, be resorted to only in demonstrating the presence of a perforation or wound of the stomach, and for locating other lesions in the organ or its immediate vicinity.

3. The ileo-cecal valve is rendered incompetent and permeable by rectal insufflation of air and gas under a pressure varying from one-fourth of a pound to two pounds.

4. Air or gas can be forced through the whole alimentary canal, from anus to mouth, under a pressure varying from one-third of a pound to two and a half pounds.

5. Rectal insufflation of air or gas, to be both safe and effective, must be done very slowly and continuously.

6. The safest and most effective rectal insufflator is a rubber balloon large enough to hold four gallons of air or gas.

7. Hydrogen gas should be preferred to atmospheric air or other gas for purposes of inflation in all cases where the procedure is indicated.

8. The resisting power of the intestinal wall is nearly the same throughout the entire length of the canal, and in a normal condition yields to a diastaltic force of from eight to twelve pounds. When rupture takes place, it either occurs as a longitudinal laceration of the peritoneum on the visceral surface of the bowel, or as multiple ruptures from within outward at the mesenteric attachment.

9. Hydrogen gas is devoid of toxic properties, non-irritating when brought in contact with living tissues, and is rapidly absorbed from the connective-tissue spaces and all of the large serous cavities.

10. The escape of air or gas through the ileo-cecal valve from below upward is always

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attended by a blowing or gurgling sound heard most distinctly over the ileo-cecal region, and by a suddem diminution of pressure.

11. The incompetency of the ileo-cecal valve is caused by a lateral and longitudinal distention of the cecum, which mechanically separates the margins of the valves.

12. In gunshot or punctured wounds of the gastro-intestinal canal, insufflation of hydrogen gas enables the surgeon to determine positively the existence of a visceral injury without the risks and medico-legal responsibilities incident to exploratory laparotomy.

[In a case reported by Dr. Mackie, (Dr. Senn's assistant) *Med. News* June 9, 1888, in which the hydrogen test was used for gunshot wound of the abdomen on May 11, 1888, it was stated that, "The inflation was continued until the abdomen became uniformly distended and tympanitic throughout. Still no gas escaped through the wound of entrance, although kept at the highest level. On firmly compressing the abdomen, there occurred an intermittent escape of gas, mixed with blood, through the wound entrance. To demonstrate the presence of hydrogen by ignition of the escaping gas matches were employed. These proved very unsatisfactory, for a burning match never once happened to be directly over the wound of entrance when the gas was escaping. The taper used by Dr. Senn in his experiments had, in the hurry of preparation, been overlooked."

In reproducing Dr. Senn's experiments on dogs the writer has in several instances failed to force the gas through the wound of entrance, although the peritoneal cavity was distended by gas, until pressure was made laterally on the outside of the abdomen as in Dr. Mackie's case.

This failure of the gas to escape through the wound entrance may be due to the way in which the bullet strikes the abdomen and penetrates the peritoneal cavity. Thus, if it strikes the wall pretty near at a right angle the track of the ball is likely to be short, and point of entrance into peritoneal cavity not likely to be occluded by folds of peritoneum which may act as a valve, but, if the missile strikes the abdomen slantingly or at a deviation from a right angle, the track of the ball is likely to be circuitous and enter the peritoneal cavity in such a manner, as to make a valve like entrance which will interfere with the exit of the gas.

In a case where the hydrogen test is applied under conditions as just described, where the gas penetrates the cavity of the peritoneum, yet does not come out through the entrance wound, it will do no harm to the patient to enlarge the track of the wound down to the peritoneum, and expose the site of penetration of the peritoneal cavity, when all obstacles to the escape of gas will have been removed, and the test by ignition can be satisfactorily applied.

We hope that all practical surgeons will apply this test in gunshot and other wounds of the abdomen at the earliest opportunity, and accord to it as being one of the most valuable contributions to the surgery of penetrating wounds of the abdomen.]

Treatment of Wounds of the Abdominal Viscera.

The very important researches of Dr. Edler, of Metz, published in vol. xxxiv. of the *Archiv f. klin. Chirurgie*, are abstracted in the *Centralblatt f. Chirurgie* of Feb. 18, 1888. The author's conclusions, founded on a series of experimental researches and of collected cases—in all 868—are as follows:

Laparotomy is indicated; *a*, for the arrest of hemorrhage by the ligation of large intra-abdominal blood vessels, or by the occlusion of the bleeding organ; *b*, for the removal of serious peritoneal exudations; *c*, for the opening of intra-peritoneal collections of pus, or of abscesses in the viscera themselves; *d*, for the extirpation of any of the abdominal viscera.

As to wounds of special organs he concludes:

1. In wounds of the liver jaundice occurs in 20 per cent, pain under the shoulder of the right side is often marked; wounds of the

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onvex surface are more favorable than those f the concave surface, and with the excepon of those penetrating the liver substance, ıey are less dangerous than was formerly ıpposed. The mortality of injuries of the ver of all sorts was 66 per cent.

5. Injuries of the gall-bladder are by no eans absolutely fatal, 25.8 per cent of the ıses resulting in complete cure. Such ounds necessitate neither suturing nor cholo-stectomy.

Injuries of the spleen are fatal in 70.6 per ınt of the cases. Stab wounds run a more ıvorable course here than the wounds menoned above. The spleen should be removed hen after subcutaneous lesions dangerous eeding occurs, when after open wounds rge vessels continue to bleed in spite of the mpon, when progressive pathological ıange is going on in a prolapsed spleen, and hen suppuration of the organ occurs.

Injuries of the pancreas were associated th injuries of other organs. Escape of the ncreatic secretion has never been observed shot wounds, and only once in stab ıunds.

Injuries of the kidney vary greatly in their mptoms according to whether they are in-or extra-peritoneal, but show a total mority of 47.3%, 16.5% lower than the average ırtality of the whole series of visceral inies. Extirpation of the kidney he believes be indicated when bleeding threatens life, l when suppuration is excessive, and nephomy has failed to give relief, contra-indica- in congenital absence of the other kidney, horseshoe kidney, and when there is a sim- injury or sympathetic disease of the other ney.

The Radical Cure of Hernia.

). H. Petit reviews in *L' Union Medicale* March 17, 1888, the discussion on the ve subject, which took place at the last ɛting of the French Surgical Congress. ny distinguished French surgeons took t, M. Socin, of Bale, reading the opening er. His conclusions, and the comments ɛeupon may be summarized as follows:

1. The radical cure of inguinal or femoral hernia by operative treatment is possible. MM. Trelat and Legond suggested "surgical" or "operative" cure instead of "radical", on account of the frequency of return.

2. The operation is the necessary complement of all kelotomies done for strangulation, excepting only the cases in which the intestine cannot or should not be reduced. This was concurred in by all.

3. The radical cure of non-strangulated hernia is indicated: *a.* In young subjects of both sexes (under twenty years) when the classical treatment—by truss—does not succeed in completely and absolutely holding up the hernia. *b.* In adults when the truss does not act in a similar manner. M. Socin thinks that before the age of twenty years hernia should be considered as practically congenital, as, although the hernia may not exist at the moment of birth, the condition of the inguinal and crural canals which favors it does. M. Richelot believes that it would be well to employ the radical cure in congenital hydroceles, which, of course, favor the formation of hernia.

4. The chances of success are better in proportion to the youth of the patient, the smallness of the hernia, and its shortness of duration.

5. The existence of a double hernia, or of frequent hernias in the family, diminishes the chance of success, in the sense that it shows a hernial predisposition which favors relapse, but offers no contra-indication to the operation itself.

6. Bodily labor, according to M. Socin, does not tend to produce relapses, but this opinion was not thought to be correct by the majority of the speakers.

7. The employment of the truss after the operation is useless, often harmful. This was concurred in by MM. Lucas Championniere, Leonte, and Thirias, and objected to by MM. Trelat, Legond, Richelot, and Routier.

8. The operation is without danger in simple cases. There were reported at the congress 239 cases with 2 deaths, one from encephalitis in a confirmed drunkard, the other

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from pulmonary congestion in an emphysematous patient. In complicated cases we must make two classes, one in which the complication is purely local and relates to the volume of the hernia, its adhesions, etc., and another which includes aged and cachectic subjects, who in this, as in other surgical work, present the largest proportion of failures, and with whom the benefits of the radical cure do not counterbalance its dangers.

9. The operation consists essentially in the total ablation of the sac of the hernia beneath its neck. Suturing of the pillars is only exceptionally necessary.

10. In congenital hernias the dissection of the hernial sac may be difficult, but succeeds in the great majority of cases. The lower portion should be retained in order to preserve a tunica vaginalis for the testicles.

11. In case of orchitis with atrophy of the glandular structure the testicle should be removed with the sac.

Removal of a Portion of the Liver.

Langenbuch reports (*Berliner klin. Wochen.* Jan. 16, 1888) the successful removal of a constricted portion of the liver weighing about a pound. Owing to its hinge-like attachments to the body of the gland, and the congestive hyperplasm due to impeded circution, it was both heavy and movable, causing intolerable distress, especially during the dorsal decubitus. The diagnosis was made by exploratory incision. The attachment was ligated in sections and the constricted portion removed. Symptoms of internal hemorrhage occurring the same evening, the abdominal cavity was reopened, the bleeding checked, the blood removed by sponging, and the wound closed. Healing was prompt, but ascites developed shortly accompanied by some edema. The abdomen was twice tapped, and the patient fully recovered without further mishap.

Langenbuch holds this to be the first case in which a large portion of the human liver has been removed by excision.

Healing of Wounds of the Stomach in Relation to Various Sutures.

Dr. Alfonso Poggi, in the *Atti della Reale Academia Medica de Roma* for 1886-7, relates a number of experimental observations which have led him to the two following series of conclusions, the first referable to the process of cicatrization, the second regarding the results obtained by different methods.

1. Raw (or freshened) surfaces of the walls of the stomach unite as speedily and firmly as those covered with serous membrane, even a little more rapidly as regards the beginning of the cicatrization along the line of section. The mucous surfaces, on the contrary, do not unite even when they have been previously freshened by curetting or by superficial excision.

2. Wounds of the stomach treated by the method of introflexion of the margins (whatever the remote effects as to the form of the cicatrix may be), give the same results as in those sutured so that the edges of the wound are simply brought together. The internal projection created by the introflexion is very slow to disappear.

3. When the loop of the suture embraces the mucous membrane with any degree of pressure, the yielding structure of the latter fails to give sufficient support to the thread until the delicate muscular layer is reached, and the little wound which results does not heal entirely by the time the suture separates. The regeneration of the mucous membrane is thus delayed, and cellular infiltration of the connective tissue occasioned.

4. In both trifling and extensive solutions of continuity of the mucous membrane, a true process of regeneration occurs. The investing epithelium it first reformed, which, in a clean-cut wound united with accurate sutures, requires from seven to fifteen days. The epithelium before taking the form of its own proper cylindrical variety, has that of pavement epethelium, the process is, therefore, analogous to that observed in the regeneration of the tracheal and uterine cylindrical epithelium.

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5. The formation of the glandular layer, the contrary, although one observes it in e beginning of the cicatrizing process, pro-eds with such slowness that months are eded for the entire reconstitution of the ucous membrane.

Dr. Poggi's second series of conclusions are follows:

. That all the methods of suturing resul. in cure, but that the plan of extroflexion is slow and indirect in its action, simple taposition of the edges gives a good regu. cicatrix, but the method of introflexion of edges of the wound offers the greatest se-ity.

. That separate suture of the mucous mbrane, with the object of securing cker healing, is not indicated in uncom-cated stomach wounds, and that sutures of sorts are more useful when the loop of the ure does not include the mucous coat, but es in only the serous and muscular.

. That for security and rapidity of action sutures of leather should be preferred.

. That catgut sutures have given excel-results.

The volume of Proceedings of the Royal demy of Medicine of Rome is a royal oc-of between three and four hundred es, beautifully printed on fine paper, illus-ed with excellent lithographs, and, both ts execution and in the character of the cles which it contains, reflects great credit n Italian medicine and surgery.

ORIGINAL ARTICLES.

IE PRACTICAL SUGGESTIONS RE-ARDING THE THERAPEUTICAL AC-ON OF QUININE AND SODA SALI-LATE IN ACUTE PYREXIA AND PHOID CONDITIONS.

BY R. M. KING, A. M., M. D.

Read before the Press Association, May 28.

ere is a disposition among therapeutists der-estimate and forsake the old and remedies of the past, and to take up with those that are comparatively new and untested.

A remedy that has passed the ordeal of time and experiment, and can boast of having been tested exhaustively as to its remedial value is suddenly dropped, and some new bantling, born of questionable parentage, is at once adopted, honored with a high sounding title, heralded by the medical press from Maine to California, and from the St. Lawrence to the Gulf, and sent forth into new fields, clothed in the habiliments of meaningless pufferies, ingeniously deceptive endorsements, and thus marked, is hurled down the throats of thousands of innocent and confiding patients. New remedies, of little or no value, without a rigid physiological examination from some respectable scientific laboratory, are sent forth with the insignia of honestly earned merit stamped upon them by a profession whose gullibility is marvelously progressive in the wrong direction. In consequence of this indiscriminate use and indorsement of new remedies, scores of lives are annually jeopardized, and false theories in practical therapeutics, as baseless as they are attractive, are promulgated, thereby doing great injustice to the profession, that in honor we should seek to strengthen and protect. It is by such means that our profession is made to show wonderful advancement as a science, but as an art, to exhibit deterioration and decay.

It is always right to be on the alert, to seize hold of opportunities, invent, establish and develop, but let this improvement be along the line of demonstrated clinical facts and in the light of physiological research and experiment.

In the employment of all remedies, we should learn to discriminate between an actual and practical knowledge on the one hand, and a theoretical and empirical action upon the other. To know when to give a drug is as important as to know how; and the when and the how should be based upon pathological conditions and correct clinical data. A truth winnowed from falsehood through years of patient toil and honest research, is no

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more valuable or entitled to precedence than one of recent date, unless its claim to priority is based upon a principle so far-reaching and benevolent in its nature, as to embrace within its grasp present and future generations.

Science, however, demands of her votaries, action, unceasing toil and investigation, and, with the enthusiasm and courage of pioneers, to explore unknown regions, cultivate barren wastes, develop and perfect knowledge, and, in the spirit of true philanthropy, to give an impulse to therapeutic research that will stamp its impress on coming ages. But, after all, the greatest need of the present is the "development of a great central law to give unity and precision to scientific methods" (Octerlony)—a law by which we can accurately measure and classify morbid states, and effect through remedial agents their eradication or cure. This discovery cannot be made by the blind following of authority or the aping of prescribed formularies.

In our estimation of a remedy and its supposed action, we should always consider the *vis medicatrix naturæ* as through which is revealed the intrinsic tendency of disease to health, and only resort to its use simply as a reserve measure to be called into action when certain conditions recognized by us, indicate its employment. It is not the multiplicity of remedies at our command, or those coming into daily use that "give unity to our methods or precision to our results," for the real object in rational medicine is not the discovery of new remedies so much as it is the proper application to diseased processes of those that we already have. It is the misuse of remedies that we have that is creating and fostering skepticism in our ranks, and bringing reproach upon a grand and noble calling, "for what is the value of a drug even if we know its action, but have no knowledge of the indications for its use?"

A better knowledge of the nature of disease, and correct and accurate clinical observations, will aid us more in improved therapeutic measures, than all the drugs discovered during this century. Apropos of these reflections, I desire for a short time to direct your attention to the consideration of two important remedial agents, quinine and soda salicylate. What I shall say in reference to these two remedies will not be exhaustive or indicative of the entire sphere of their usefulness, but simply as practical hints bearing upon their misapplication and abuse in controlling certain morbid conditions.

Clinical experience is daily demonstrating the value of salicylate of soda in the treatment of malarial complications and typhoid conditions. It is not on the plea of specificity or specificalness alone that I would make this statement, for the results obtained by the use of the salicylates are in many instances from an empirical standpoint, and through their silent and imperceptible action indicate valuable therapeutic properties of a most pronounced and self-assured character.

The power exerted by this remedy in arousing the different emunctories of the body, and thus restoring a normal condition of the blood through proper elimination and removal of the products of improper assimilation, is well established. Its ready combination with nitrogenous residues of the human organism, thus increasing their solubility and promoting their elimination and checking retrograde metamorphoses, constitutes an important action of this salt. It exerts a beneficial influence in restoring the balance between heat production and heat loss and by this means controls the oxidative processes and the consequent rapid meltdown at high temperatures of nitrogenous tissue which is frequently the starting point of a typhoid state, contradistinguished from typhoid fever through the rapid accumulation of an exeess of hystolitic products in the blood. It is the effect of impaired excretion and the tissue decay, which is the result of the rapid oxidation, transforming these products of tissue change into uric acid and urea, and dumping them, as it were, on delicate and sensitive nerve centers, interrupting important functions and thereby disturbing the harmonious relations of the various organs and tissues of the body, which results in the typhoid state.

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This remedy is also supposed to exert a ɔneficial result in lessening the quantity of ɔrin factors in the blood, by arousing the ver to an increased performance of its funcɔn in this direction. "It is a prompt cere·al, nervous, arterial, muscular, molecular ıd systemic sedative." It possesses also deded antiseptic, antifermentative and paraticidal properties, destroying or antidoting e contagium of typhoid fever, the supposed ptic element of which resides in the stools ıd which serves as a focus for the developent and evolution of the specific germs of ıis disease.

It is also useful as auxiliary to or substitute ır quinine in acute pyrexial conditions of alarial origin when the latter remedy is abılutely contra-indicated or badly borne. It frequently the case, that in the administraon of quinine in large doses, or in small ɔses for an indefinite period of time, we are kely to over step its therapeutic and obtain ı toxical action on brain, heart and spinal ırd. If this condition of things supervenes, ıinine is absolutely unsafe; and if, in conıction with the peculiar condition referred , we have, as we sometimes do in the infecɔus diseases, a weakened and degenerated ıart fiber, its use should be positively intercted.

Again, quinine in these cases of muscular ıgeneration affects the spinal centers, proıcing great depression of reflex action, and its use is persisted in, "will produce paraly· of the cord from feebleness of heart, and nsequent failure of circulation." (Brunn).

To be prudent is to be wise, and in the ɛatment of these cases we should always n like the law with a prisoner, to give our tient the benefit of a doubt, and to reject select such remedies as each individual se, or the peculiar phases of it may dermine or require.

Up to the present time science has not fuldemonstrated the nature of the malarial ison, nor the precise way in which it affects e organism, neither are we able to state finitely how quinine, soda salicylate, or other remedies of this class act in antidoting or otherwise destroying the specific virus. Soda salicylate is not "a cure all," nor can it be made universal in its application, nor in all cases a substitute for quinine, but it has its field of usefulness and its value, and when intelligently prescribed will modify and correct morbid states and largely lessen the consumption of cinchona salts in the diseases already referred to.

In my practice I seldom employ quinine in the same way and to the same extent that I did in the earlier years of my professional life, and yet I am not opposed to a judicious and proper use of it. It is a grand remedy, and skilfully used possesses grand possibilities and will achieve great results when wisely administered, but, like the lancet of old, "a little instrument of mighty mischief," it is capable of doing infinite harm. The idea inculcated in this paper is to find its legitmate sphere and confine it to that, to correct,as far as we can can, its misuse and abuse and measure its real merit by a rational, practical and scientific use of it.

In the treatment of continued fevers, and among this class I embrace ilio-typhus and that nondescript, typho-malarial, the profession for years has run wild in the indiscriminate and irrational use of the cinchona alkaloids, enriching the pockets of specialists, establishing and entailing neurotic troubles,and in many instances substituting for the typhogenous miasm that it was intended to eradicate the peculiar toxic effect of the drug.

Besides being a valuable antiseptic and parasiticide soda salicylate is a safe and important antipyretic,and should be resorted to, not universally, but in most cases when the thermal curve exceeds 102 degrees Fahrenheit. I seldom find it necessary to use an antipyretic when the temperature falls below 201 degrees Fahrenheit. Besides, if it is true, as has been enunciated years ago, "that the compensating character of a high temperature was beneficial in that it probably aided in the destruction of micro-organisms and led to a speedy termination of the disease," the practice of employing this class of agents is at

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times a questionable procedure. I always in the treatment of these fevers, begin with a calomel purge, and at intervals during the existence of the attacks, use a small portion of mercury triturated with sugar of milk and soda, for its cleansing, depurative, antifermentative and antiseptic effect. I adopt free and frequent sponging of the hands, face, arms, abdomen and extremities with water, and begin the use of the soda salicylate whenever the temperature exceeds 102° Fahrenheit, or remains stationary at that height for several days in succession. Should a decided intermission or remission occur, I employ quinine sulphate in ten grain doses, and repeat again in two hours, at some time preceding the expected rise in temperature or immediately after the remission has taken place. I do not repeat the dose until the following day, and not then if a decided impression has been made upon the temperature curve .The temperature I endeavor to have taken at 8 A. M., noon and 5 P. M. As soon as I discover the thermal curve ascending above the height previously mentioned, I then begin the soda salicylate in ten grain doses, and repeat every half hour until thirty grains have been taken, then I stop. The temperature will usually decline from two to three degrees and remain so for from ten to twelve hours, and when it does ascend, will not reach the same height as in the first instance. An hour afterwards, unless then contra-indicated, I order per rectum in suppositories five grains of quinine, and repeat this again during the night. My object in this is, first, to save the stomach, thereby enabling me to nourish my patient, and secondly, to maintain the impression made by soda salicylate. I repeat this treatment in the same dose and manner for two days in succession, and then rest one day, unless the temperature curve has decidedly fallen. I begin again after a day of rest and diminish or increase the doses indicated by thermometer, leaving off the quinine unless its employment is otherwise indicated. In the meantime I vigorously push milk and concentrated animal broths, and carbonated iced drinks to quench the thirst and to quiet peripheral nerve endings in the stomach. To procure sleep I usually order a mixture in mint water and tolu syrup of chloral hydrate and elixir brom. comp. at night, and occasionally during the day if an emergency arises demanding it.

This plan vigorously and intelligently pursued, will usually cut short the typhoid or typho-malarial attack in from ten days to three weeks time, do away with the administration of so much quinine, sustain and nourish the patient, and in a reasonable period, re-establish the vital process and the harmonious performance of all functions of the body.

The remedy is not free from danger, for in certain gastric and nephritic conditions or disturbances it must be cautiously employed. In the light of our present knowledge of scientific inventions and improved methods of clinical research and investigations, why should we not reach out further and lay hold of remedial agents, adapting them with unerring accuracy in dose and kind to physical conditions and the control of law governing individual afflictions?

Why should not the physician in the use of remedies be capable of reaching a precision very nearly equal to that which characterizes the operations of the engineer in his employment of the forces and laws of nature in the line of his profession?

In the use of remedies we should always aim to adapt them to individual diseases and conditions, always remembering that one patient is not like another, therefore, a remedy applicable to one case may prove, owing to age, state of vital action, idiosyncrasy, season, habit and the character of epidemic detrimental to another.

Discussion of Dr. King's Paper by the Medical Press Association.

Dr. Y. H. Bond.—So far as the use of salicylate of soda is concerned, I have used it considerably and have been impressed with its worth in one direction, and in one direction only, that is in its control of rheuma-

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ffections not dependent on syphilis. As to ts influence in typho-malarial troubles and yphoid fevers my experience has been against ts use. As to its poisonous influence I am atisfied that it is far greater than is the exessive use of quinine. I have never been onvinced that I really poisoned my patient ith quinine, but from the excessive use of alicylate of soda I am satisfied that in one ase I did poison my patient. I was using it or the relief of rheumatism; however, I idn't know that there was a syphilitic hisory connected with it. I had interrogated he gentleman,and he denied ever having had yphilis, and consequently he did not receive ny benefit from ordinary doses. So I inreased the quantity and gave him excessively arge doses which poisoned him. No unfornnate results followed however. Later on ie informed me that he had had syphilis, and put him on mercurial treatment with prompt elief.

So far as quinine is concerned, when I beran practice in St. Louis, the class of fevers hat prevailed at that time was to a far greater xtent amenable to quinine than the cases hat I meet with now. It was not uncommon o have four or five patients affected with fe-er in the same house. One or two seasons lmost every one had fever blisters on his ips. Then quinine was an invaluable remdy, and we could break up the fever, but ince the ponds that existed at that time ithin the limits of St. Louis have been rained, we have been treating a class of feers that will not yield to quinine,nor does it eem to lessen the fever, no matter how much given.

I am in the habit of giving my patients arly in the course of undetermined febrile iseases, quinine for its aid in diagnosis. If 're prescribe much quinine and it has no inuence, it is fair to presume that it is not ialarial fever that we are dealing with. I sually give a mercurial purge precedent to ie use of quinine. I occasionally impress ie patient with quinine during the continunce of the fever with a view of robbing the tack of any malarial element that may attach itself and thus preventing the impaired vitality that must coincidently occur. It is utterly impossible to make a positive diagnosis at first in many of these cases. I have been governed much in reaching the diagnosis in typhoid fever from the fact that quinine had no influence on the case, when at the same time there was no apparent cause for the fever from inflammatory or other condition.

Dr. F. R. Fry.—Several points of the doctor's paper interested me. He speaks of the antiseptic effects of salicylic acid. I have seen it stated on good authority—that of Bartholow—that none of the salts of salicylic acid have any antiseptic influence whatever. On the other hand I remember to have seen an article in which good results were claimed from the use of salicylate soda in the treatment of cystitis. This is questionable. I have within the last two weeks had two experiences with salicylate of soda that did not conform to the observations of Dr. King. One case of malarial fever, such as we are more apt to see in the fall and spring, but the patient did not tolerate quinine well and I tried salicylate of soda to keep down the fever and to gain rest, but it did not act as I had desired, and I was compelled to resort to quinine again. I have had other similar experiences with it. The fever would not yield to fifteen grain doses of salicylate of soda, but it would yield to ten grain doses of quinine.

The other case was that of an old woman who has had articular rheumatism which always yielded well to the salicylate of soda, but its depressing influence on her heart was such as to frighten me. I used antipyrin with the most fortunate results, reducing the fever and modifying the pain. I do not know of anything with which I could have succeeded in making her so comfortable as I did with the antipyrin.

Dr. King made one remark the truthfulness of which I have often observed, and that is, the great advantage of close clinical study and careful diagnosis by which we should guide our therapeutics. I have been impressed with this fact in remarking the success of our irregular brothers. I have seen

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cases of acute fevers that they were handling where I know that they were not using the amount of quinine that we are apt to use, and yet they succeeded fairly well with their therapeutics. They adopt various measures that we are apt to overlook in our desire to use specific remedies in treating cases. We may have a very specific plan or theory of treatment and yet accomplish that without the use of specific remedies so-called; for instance in typho-malarial fever there is a large line of antipyretics that we may use successively. Whatever the method, the object should be a specific one and not the remedies by which we seek to attain it.

So far as the scientific use of remedies is concerned, of course we all aim at that, but in the practice of medicine we may be too scientific and not empirical enough. Some of the best remedies we have, have been empirically discovered and used not only empirically by the profession, but also used before the profession gets a hold on them, as was the case with the cinchona alkaloids. On the other hand there are remedies which have been popularized where the commencement of their use has been promulgated from scientific sources, as benzoate of soda. It was lauded by scientific data that encouraged us to use it, and yet it has failed in the points in which its friends said it would be successful. Of course our whole aim should be to scientifically use remedies but we should not get so enthusiastic as to overlook what we would use in a more empirical way.

Dr. J. R. Lemen.—There is one matter that Dr. King spoke of to which I would like to refer, and that is the use of salicylate of soda in those cases of rapid metamorphosis of the tissues; in which, instead of the matter being excreted as urea, it is excreted as uric acid. I have used it in those cases and thought that I derived great benefit from it; but with its use in typhoid fevers my experience has not been so fortunate. In typho-malarial fevers I never thought I could see much benefit to the patient. I have had several of them present such symptoms as fainting, ringing of ears, etc.

Quinine is a much abused medicine; it is often given carelessly. In the last week or two I was giving it to a patient carelessly and probably the capsules were old, and she had a half dozen of the capsules pass without digestion, and of course I didn't cure my patient of the intermittent fever. It behoves us to be careful in the manner of giving it.

Dr. Bond.—That will occur in certain conditions of the intestinal canal no matter how you give the quinine.

Dr. Lemen.—Yes, but in these cases we ought to give it in solution.

Dr. William Porter.—I used the other day in a case of pneumonia a curious substitute for either quinine or salicylic acid. You remember, of course, the much-abused Bergeon treatment for phthisis, and I am not willing to say that the remarkable reduction of temperature that followed in some cases was due to the absorption of the gas; in this case of pneumonia the temperature was 103.5°, and I gave as an experiment three injections of the gas, and quickly following this the temperature was much reduced. I thought, while listening to the paper that if it is true, that much of the processes of typhoid fever are due to local lesions, as there are some reasons for thinking, might not our treatment for typhoid fever take the form after a while of injections of gas? Dr. King spoke of the septic elements in the stools, and, of course, we are all familiar with the pathological conditions. Experiment in this direction may be productive of good. If the poison absorbed from the intestinal contents is potent, some good might be done by the exhibition of either sulphuretted hydrogen or some other gas. I propose, when I can do so without injuring the patient, to again use this gas, thereby reaching the lungs directly, and if there is anything in the theory of some of the German pathologists, that pneumonia is closely akin to erysipelas, possibly some good may be done in this direction.

Dr. Lemen.—Would there be no danger of rupturing the intestine in typhoid fever?

Dr. Porter.—I think there would be. It should be used carefully.

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Dr. H. C. Fairbrother.—I was pleased with the paper. The preliminary reflections and general ground seemed to be taken against the use of new remedies compared with old and tried ones, but in the body of the paper I was glad to find that the position was contradicted in taking the ground of salicylate of soda against quinine, the former being a new remedy and quinine being an old one, that is a new remedy in the sense of the paper, when used to counteract pyrexia. It does not deal with it in relation to rheumatism, the disease that brought salicylic acid into its present prominence.

In the sense in which the paper discusses the salicylate of soda I have not very much experience as opposed to the forms of typho-malarial poisons. I have given it as a sort of last resort—a change from quinine, but I haven't found from its use that benefit that has led me to repeat the use of it or to follow up its study. There is nothing I like better as a topical application in diphtheria than salicylic acid. Time and again I have swept the diphtheritic patch away by its use, and in so many cases that I feel confident in taking this position. I have given it in rheumatism so long and in such a variety of cases that I feel perfectly sure that it is a valuable remedy, though not specific, in a great many cases of rheumatism. I have found it to relieve the rheumatism in from three to six hours, and if it would return in a week, by repeating salicylic acid it would again be relieved, but in these typhoid and typho-malaria fevers dependent on, science knows not what, my experience has not been favorable to salicylic acid.

Dr. R. L. Thomson.—I agree with Dr. King in regard to the use of new remedies. I think that they ought to be thoroughly tried, but some one has to do the trying. Some of the best remedies are brought into use by mere accident.

I have used salicylic acid as an antipyretic in scarlet fever and as a curative agent in acute rheumatism, with excellent results. I have also used it with good effect in producing profuse perspiration in cases of detached retina.

My experience coincides with Dr. Bond's, in that quinine does not now yield the marked good results that it did some years ago.

Dr. Bransford Lewis.—I think that in the Hospital we have obtained very beneficial results from the use of soda in the cases of septicemia from severe burns, frost bites and gangrene. It has had an antipyretic, and, seemingly, antiseptic influence in those cases; but we too have the generally depressing effect made on the patient and have therefore been guarded in its use. As to the antipyretic use of quinine I think that we have much more efficient remedies in antipyrine and, especially, antifebrine, both of which we have used quite extensively in the hospital.

It is only in fevers strictly of malarial origin where quinine affords much benefit. As to the ultimate beneficial effects of the continued use of antipyrine and antifebrine, such as shortening the length of the attack I am undecided; the temporary effects are certainly beneficial. In a recent case of pneumonia, together with a reduction of the temperature, a feeling of general comfort, without depression, and a tendency to sleep, succeeded each exhibition of antifebrine.

Dr. I. N. Love.—This has been to me an interesting discussion, and the paper was interesting to me, because I feel that the field of therepeutics is a neglected one. On the 1st of January I read in the *London Lancet* an epitome of the years progress in the different branches of medicine, and the retrospect was in every way satisfactory and agreeable to the writer except in the direction of therapeutics. He said that pathology had advanced, but therapy had been neglected. I think with the essayist that long-tried friends should not be thrown aside, but at the same time I believe that we should cultivate a spirit of inquiry, applying new remedies when we can do so with safety to our patients. I think it a great weakness on the part of the profession and also on the part of those who record their work, the writers, that they decide for or against a remedy too quickly; having jumped at a hasty conclusion, they drop the investigation, and many times science and humanity are the sufferers.

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Regarding the remedies under discussion this evening they are a favorite combination with me, quinine and salicylate of soda. In combining them I have to admit giving them empirically, somewhat after the manner suggested by Dr. King. Salicylate of soda is an assistant to the excretory organs, a tranquilizer and possibly an antiseptic. I have often found a tendency to aching pains, rheumatic complications, dissipated by the administration of the salicylate in conjunction with the quinine.

I think quinine itself is one of the most thoroughly abused remedies we have. It has not been my observation that there is no harm produced by quinine. I don't believe that the profession is responsible for the result; but the laity take it under the direction of careless physicians who, in the habit, based on laziness, advise the use of quinine indiscriminately, and so the profession is largely responsible. It is a dangerous medicine and should be given carefully. I like the idea thrown out by Dr. Fry, that we should have a specific purpose in prescribing. In the use of quinine now I don't give a hundredth part of the quantity that I used to give, and my success is much better. I grant that there may be a change in the character of the disease, but not to the extent of the difference of results. With regard to its use as an antipyretic, I don't believe in giving it at all for this purpose, only as an antiperiodic; it interferes with the digestive and other functions. As an antipyretic I think the alternating of sponge-baths and the administration of antipyrine and antifebrine are the best methods. I believe the control of temperature affects the length of the attack. High temperatures are dangerous. I don't believe that they are conservative, that they are necessary to the burning up of the germs. The nerve centers and the blood itself may be so demoralized by the long continued high temperature as to make the disease fatal.

The true secret of treating malaria is that of recognizing and treating the disease early, before the blood and various organs have become demoralized by its long continued presence. The same is true of rheumatism; if we treat it energetically and early, we find it yields readily. I cannot better illustrate the point than by citing the disease trichina spiralis. If we can recognize the presence of trichinæ, and take it while it is in the alimentary canal, we can reach it and get it out, but if it gets scattered into the various tissues, then it is a hopeless case. I think the reason why some observers decided against certain remedies was because they were used in cases in which they were not applicable.

Dr. R. M. King.—In the paper, I did not attempt to discuss the action of salicylate of soda in rheumatism because I have some peculiar views as to its true worth and importance in this disease; nor did I refer to the value of soda salicylate in diphtheria, headaches, diabetes, scarlet fever and other conditions for which it has been from time to time so highly lauded for the time allotted to me in this discussion is too short to do full justice, to the merits of this remedy in all of these diseases. In reference to its poisonous action, every remedy in the materia medica has a poisonous dose. There is a limit also to its physiological action. Salicylate of soda is not free from this charge. It is in certain doses poisonous, just as quinine is; excessive use of the remedy is just as wrong as giving quinine in excess, but the peculiar physiological and therapeutical effects of either of these drugs are sooner reached by the maximum dose. I give them in that way for the purpose of impressing the system, and then I stop. The harm done is by repeating small doses, affecting the heart first, and then the spinal centers.

In reference to its antiseptic properties, I know that it is claimed that it is not antiseptic, but for every one that claims that is not so, I can show one that says it is antiseptic. I have no laboratory experience with the drug; it is only clinical. I do not contend that salicylate of soda is antiperiodic to the same extent that quinine is: it is a heart depressant, but it is not as much of a heart depressant as is quin-

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ine in certain doses, because the depression can be checked by the administration of a stimulant, such as quinine which I frequently give following the dose of salicylate of soda. It is not a universal remedy; there are states in which I would not give it. It is a dangerous remedy in gastric or nephritic lesions. It has a tendency to produce albuminuria under such conditions. But it is eliminative in its character and hence by its use the waste products are more rapidly gotten rid of. In reference to giving it in small doses, I do not think it safe to give it in this way any more than I do quinine. It is a valuable remedy as an antifermentative agent.

In reference to new remedies I do not wish to inveigh against them, because I believe in giving them a fair trial, but I do not want to discard old and tested remedies before the new ones are tried. The soda salts have a wonderful influence in stimulating the hepatic cells. We know that the liver is an important organ in the economy, and it is more intimately associated with the vital processes than any of the other organs. Digestion is intimately associated with, and dependent upon the proper function of the liver, therefore the soda salts influence the action of the liver in stimulating it and increasing the proper performance of its function, and its eliminative action as well.

In reference to the antiseptic properties of salicylate of soda, the beneficial results obtained by Dr. Lewis give evidence of its favorable influence in that direction. While I don't desire to express anything like positive experience in reference to any remedy as a cure-all, yet salicylate of soda given intelligently in conjunction with quinine is one of the grandest remedies we have to-day. In acute pyrexial conditions where you want to use a simple antipyretic it is safer than all of them. I make a difference between typhoid, and the typhoid state, the latter being simply the result of tissue metamorphisis, melting down of the nitrogenous tissues that are dumped on the nervous centres and produce this typhoid state. In this state this remedy is exceedingly valuable. That it is so much of an antiseptic as to destroy the germ, I am not able to say of course, but I am impressed with one thing, that the use of salicylate of soda will largely control or aid in controlling these conditions, and act as a substitute, lessening the use of quinine.

LACERATION AND INCISION OF THE CERVIX UTERI.

BY M. YARNALL M. D., ST. LOUIS.

Upon the introduction by Emmet of his admirable ideas in relation to laceration of the cervex uteri, a new field was opened to gynecologists, and the operation was hailed with delight. Heretofore they had been incising the neck of the womb with little or no advantage, but now their former efforts could be utilized, and every case of laceration was deemed a fit subject for the knife, until like the former it was abused.

In 1881 the writer wrote a short paper condemning indiscriminate operative procedures in cases of laceration, and about the same time in the Obstetric and Gynecological Society of this city, expressed himself as opposed to incising the neck of the womb, unless under extraordinary circumstances. Now comes Noeggerath,a distinguished practitioner at this late date, and demonstrates by observation in many cases, that uterine disease is as frequent and severe where no laceration exists, as where it is present, and that women conceive more readily with, than without a lacerated cervix, and abort less frequently.

Now arises the question as regards lacerations,and the relaxed condition said to be due to them. Can they be cured without an operation, and do they tend to get well spontaneously?

Statistics and observation show that they can be benefited by treatment without operating, which entails more or less danger, (the writer having observed in more than one case pelvic cellulitis of a severe type follow skilfully performed operations on the neck, in which every precaution was taken). They

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also tend, in many instances, to spontaneous recovery with little or no treatment.

That both operations are beneficial there is do doubt, but the cases should be selected, and unless it is one entailing severe discomfort, and the disease palpably depending on the laceration making an operation imperative, we would suggest that a thorough course of galvanism be pursued, together with astringent applications, washes, etc., Ergot may be beneficial. The general health should be sustained.

Dioviburnia has proved an admirable general and specific tonic, Vermuth wine used in great moderation, etc. The bowels should be regulated, uterine hygiene enforced, together with time and rest, the laceration, in nearly every instance, will get well, as has been repeatedly observed by the writer.

Antipyrin in Meningitis.

Antipyrin has been called into requisition in still another class of cases. Guy N. Stephen, M. R. C. S. of the Cyprus Medical service (*British Medical Journal,*) has found it of incalculable value in epidemic cerebro-spinal-meningitis. Its action in these cases, is in the direction of "quelling those nerve storms," which are one of the causes of death. He thinks it has the good qualities of opium, ergot, belladonna, the bromides and aconite in the direction of allaying the terrible pain, in influencing the course of the disease, and in warding off death. He advises it in three fifteen grain doses given in the course of an evening and night. He does not insist that its action in these cases is by reduction of the temperature.

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Exploratory Laparotomy.

Dr. John A. Wyeth, professor of surgery in the New York Polyclinic, discusses most instructively (in the *N. Y. Med. Journal* for June 2d), "Some Surgical Lesions of the Abdominal Viscera."

Twelve cases are made the basis of the conclusions arrived at, six laparotomies with fatal termination, and as many in which recovery ensued. The report of these cases was comprehensive. The intent of the paper was to direct attention to the advisability of explorative laparotomy in a certain class of cases. His deductions lead to the conclusion that in cases of doubtful abdominal lesion, exploratory incision is warrantable, and the cases of this kind reported further warrant the assertion that these incisions for diagnostic purposes are rarely if ever fatal.

The first case was a Russian peddler, 20 years of age. Five days before admission to Mt. Sinai Hospital, he was seized with pain in abdomen, followed by vomiting, headache and dizziness. The trouble was supposed to have come from overloading of the stomach with unripe fruit. Family history negative; temp. 100.2°; respir. 24; pulse 72; urine normal; lungs, liver and spleen negative; fulness in right iliac region, which on palpation was found to contain an oblong swelling. Two months after admission, under ether narcosis, exploratory incision was made in the median line of abdominal wall; tumor found adherent to iliac fascia, cecum and mesentery, and not removable; rapid recovery from operation; death two months after from progress of the neoplasm; autopsy, sarcoma.

Case II.—Child eleven years old; had been healthy up to a year previous to entrance to hospital; pain in left iliac region; small lump at site of pain; under chloroform, abdomen was opened over the mass; sessile tumor discovered attached to fascia in front of iliacus and psoas muscles and straddling iliac vessels; removal impossible; wound closed, recovery prompt; child still living seven months after operation; tumor still growing, and death approaching from sarcoma.

Case III.—Woman 34 years; history good; in 1886 noticed distress after eating, which passed away after several hours; diagnosis malignant growth at pylorus.

One year later she had grown pale, weak, and emaciated; no desire for food; vomited daily, and occasionally the ejected matter was streaked with blood. No tumor recognized. An examination revealed laceration of cervix uteri, right ovary bound down, left fallopian tube slightly enlarged.

Exploratory incision made over pylorus, the surgeon's intention being to push the operation to gastro-enterostomy in case cancer was found—also to dilate pylorus in case of stricture. On exposing the stomach, nothing abnormal was found. Abdominal wound was closed and it healed promptly. Three weeks later an operation was performed for relief of the laceration of the cervix uteri. This was followed by a rapid and complete restoration of the patient to perfect health.

Case IV.—Omentel inguinal hernia followed by strangulation and purulent peritonitis from gangrene. Laparotomy followed by death in six hours.

Case V.—Perityphlitis, youth of 20; history good; five years back had attack of "inflammation of the bowels," since which time tenderness in right iliac region had persisted; one year back pain became greatly exaggerated.

At time of examination, there was decided tenderness on pressure and well-marked induration and swelling in right iliac region; general condition not good; temp. 99°, bowels constipated. Diagnosis was abscess, the result of an old perityphlitis.

Incision was made into right ilio-lumbar regions; keeping behind peritoneum; opening made into abscess, and some pus and broken down tissue removed; cavity immediately behind cecum and ascending colon, the walls

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of which were involved in the process of inflammation. Five days after operation, profuse fecal discharge occurred through the wound, which resulted in the formation of a permanent fistula, which, aided later by tuberculosis, caused the death of the patient about 8 months afterward.

The remainder of the cases cited are for the most part repetitions of those here given, with slight variations, (owing to different lesions), but all going to show, according to Prof. Wyeth, that operative diagnosis can do no harm, and may many times eventuate in the recovery of an otherwise fatal malady.

In his summary he concludes: 1st, that a fair proportion of cases of perityphlitis result in resolution of the inflammatory mass without suppuration and abscess. 2nd, that in rare instances pus may form and remain for an indefinite period without producing the marked acute symptoms of abscess. 3d, that the vermiform appendix is the seat of the inflammatory process in a majority of these cases. 4th, that this being the case, and considering the intimate relation of this organ to the peritoneum, it follows that peritonitis, usually local, possibly general, will be present in a majority of the cases.

Indications for the Use of Alcohol.

The indications for the use of alcohol in medicine, and the physiological effects of the drug are made the subject of some interesting remarks by Prof. Binz, of the Bonn University, in an address before the Seventh German Medical Congress at Weisbaden (Medical Age.)

Experiments, the learned professor holds, have about conclusively established the status of the drug, and have relegated it to its proper plane as an agent for the amelioration of the ills of mankind.

It has become settled (1) that in small doses alcohol reaches the heart slowly, and under those circumstances arterial pressure is heightened, in large doses it is lowered; (2) Alcohol in small quantities increases the respiratory movements by about nine per cent, but in large quantities the movement is lessened; (3) that the smallness or greatness of the amount taken determines effect upon the digestion; his opinion is that in many cases of mild dyspepsia, alcohol, in the form of wine of some variety relieves the trouble. (4) alcohol does not increase the warmth of the body but the reverse, and is therefore not necessarily contra-indicated in pyrexial diseases.

The professor held to the opinion that the question, "is alcohol a food?" must be answered in the affirmative. His experiments evidenced that a litre of alcohol was equal in nutritive force to about five or six spoonfuls of easily digested oil, over which it had the advantages of immediately and directly raising the functional activity of organs, and of passing without difficulty into the lymph and blood channels. Above all, he thinks that under the use of alcohol, albumen is spared; the physiology of nutrition teaches that the decomposition of albumen is slight so long as there is a supply of hydrocarbons, or other combustibles present.

Prof. Binz closes with the following advisory paragraph: "All that I have said in favor of alcohol, relates to the diseased individual. The healthy man needs no stimulant for his heart, his circulation, his respiratory centers, his stomach, or his intestines. He who is sufficiently fed requires no sparing agent for his body; no substitute for his albumen; the apyrexial individual requires no cooler for his warmth. If the healthy man takes alcohol in any form, it can only be done under the name of pleasure, or under that of refreshment, after severe mental or bodily work. In both cases, however, moderation is the indispensable condition, for close behind lies the prison garden of alcohol with its numerous, many visaged varieties."

The Choice of an Anesthetic.

In the choice of an anesthetic, the physician usually employs the one that his experience and observation has taught him to be the best. For this reason you find that in any

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given locality some one anesthetic is used almost to the exclusion of all the others. Some consider this a matter of fashion. During the first five years of my practice, chloroform was the only anesthetic that I gave. No deaths occurred from its use in my hands, but in several cases the symptoms that developed made me heartily wish at the time that I had tried some other means of relieving my patients. In 1885 I had the good fortune to practice among physicians who used ether almost to the exclusion of all other anesthetics. For two years I either assisted in giving this agent or gave it myself almost daily. I have at no time witnessed such alarming symptoms as those I have referred to as occurring under the use of chloroform. There are objections that have justly been urged against the use of ether as an anesthetic. We can hardly suppose that any agent that exerts such a powerful influence over the human system, can be absolutely free from danger.

In operations about the head, especially those upon the eye ball, the intense vascular congestion that ether produces in some cases is decidedly objectionable. Fortunately the "Prince of Local Anesthetics"—Cocaine—has limited the necessity for general anesthesia in these operations to enuclactions and surgical interference in inflammatory conditions.

Until I have seen something better I shall be content to use ether as a general anesthetic. The interesting brochures on this subject that have recently appeared in medical literature, prove conclusively that in the selection of an anesthetic physicians are not guided by fashion. Surgeons "long in the service" have testified that in administering chloroform in thousands of cases no serious accident has ever occurred, and for this reason they prefer this agent to any other. Similar experiences have been recorded in favor of the use of ether.

Sir Spencer Wells says, (*Brit. Med. Jour.* June 9th.) "In an address on surgery in 1877, I said: 'Given properly diluted with air, the vapor of chloromethyl has, in my experience of more than ten years with more than one thousand operations of a nature unusually severe as tests of an anesthetic proved without a single exception applicable to every patient, perfectly certain to produce complete anesthesia, relieving the surgeon from all alarm or even anxiety; and its use has never been followed by any dangerous symptom which could be fairly attributed to it. I wish I could speak as confidently of the chemical composition of the fluid sold as bichloride of methylene as I can of its anesthetic properties; but whatever may be its chemical composition, whether it is or is not chloroform mixed with some spirit or ether, or whether it is really bichloride of methylene, I am still content with the effects of the liquid sold under that name, when properly administered."

He went on to say that ten years of additional experience has served to confirm him in the opinions above quoted, and until some better anesthetic is brought forward he is content with the bichloride of methylene, made as first proposed by Dr. Richardson.

In giving one anesthetic in hundreds of cases the surgeon becomes an expert in its use. This probably accounts for the seeming absolute safely in a number of agents as shown in the reports of many eminent authorities.

Practical Points in Medical Education.

The result of the present system of medical teaching affects the interests of the profession at large rather than individual members. When "recent graduates" locate in the vicinity of an established practitioner, no radical change takes place in the amount of cash received by the latter. Usually a year or more passes before he loses a "good family." But, when by a gradual process the younger men have become established, if a reckoning be had, it will be found that each of the older practitioners have contributed (unwillingly)a family or two to his neighbor's practice. But family practice is so vacillating nowadays that few physicians discrimi-

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nate as to the professional age of their rivals.

It is for this reason that no concerted action has been taken, by the profession, to put an end to the "crowding." The subject is of such universal interest as to be a prolific topic of conversation. It has acted as a safety valve in the venting of spleen by many a doctor whose cash receipts fell short of his disbursements.

The medical councils and examining boards of England and Ireland have recently been considering how medical instruction may be made more practical. The *Lancet* of June 9th gives some of the recommendations adopted by one of these boards, one of which was "that students should be required to produce evidence that they have so far as local circumstances admit, studied fevers for not less than three months under recognized clinical instructors."

So far as we are able to see, this is of no practical interest, as the modifying clause makes the compulsory part dependent upon "local circumstances," besides, being taught by a recognized clinical instructor means something or nothing according to the method used.

In this country the usual method of clinical teaching is to exhibit the patient in the "bull-pen" to students from one hundred to five hundred in number, seated in an amphitheater. The professor makes the physical examination. Now and then a patient is made to walk up the isles and the student get a closer, but only a passing glance. This is better than no clinical teaching at all, as the student can at least say he has seen a case.

The plan, adopted by many of the colleges in the large cities, of having the class divided into sections, and each section in turn permitted to follow the professor on his rounds through a hospital, is still another step in advance, but this does not take the place of a careful physical examination of the patient made by the student under the supervision of the professor.

A thorough knowledge of the facts that are recorded in medical literature is best acquired by first mastering certain principles, in the accomplishment of which repetition is an essential feature. Didactic lectures and quizzes that are given in a three years course are quite sufficient for this; but the ability to apply these facts at the bedside is to be acquired only by actual experience. The history and all the facts concerning the bicycle may be acquired, and the student may have seen any number of experts perform, but this will not enable him to take his first ride without the danger of taking a "header." This principle in a measure applies to medicine, and the patient is fortunate, if an "older head" is present to "head off" the "header."

The next recommendation which the English Council adopted is more to the point. "Attendance for three months on the in-door practice of a lying-in hospital, or presence at not less than twelve labors of which three must be conducted under the direct supervision of a registered practitioner," is advised. The *Lancet* says:

"It is obvious that here the Committee were placed in a dilemma. In Scotland examining bodies now only require "attendance at" the insignificant number of six labors; but the raising of the number to any great extent—say to twenty—is impossible, from the fact that the proportion of gravid women who could be attended by, or in the presence of, students is not sufficient for the enormous number of students in attendance, if any supervision is to be exercised by the Scotch schools. As the case stands at present, a large number of the midwifery cases are attended in general practice, apart from the schools, and every increase in the requirement will make such arrangements more necessary; and so long as they are conducted "under direct supervision," such a course has many advantages for patient, student, and practitioner. The difference between recommending attendance at twelve cases of labour, with the personal conduct of three of these, and attendance for three months on the in-door practice of a lying in hospital, is so great, and the impossibility of students in large numbers being able to avail themselves of the alternative are so obvious, that we presume the

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Committee only made the suggestion as a pious wish."

Now as a matter fact not one graduate in ten, from the schools of this country have the opportunity to witness a case of labor previous to his assuming the responsibilities of a general practitioner. The Jefferson Medical College has endeavored to overcome this difficulty by having one or more cases of labor each year conducted in the amphitheatre before the assembled class.

The University of Pennsylvania, and the Jefferson Medical College have adopted the three years course. Slowly but surely we are advancing. We can not reach the thoroughly practical in medical teaching, however, till each graduate is required to serve as an interne in a well-regulated hospital. The free and private hospitals are becoming quite numerous enough to furnish all the physicians that are needed in the profession.

Things a Physician Should Keep.

The following practical equipment for the busy practitioner is advised by a correspondent of Philadelphia *Medical World*, Dr. Wm. A. Hunt, of Lynnville, Ind. After giving a long list of the every day medicines, for carrying in vial satchel, he advises as follows:

You should have four outside pockets in your vest: 1, gold watch; 2, quinine in oval case; 3, hypodermic syringe, fever thermometer, caustic holder, lead pencil; 4, tongue depressor and ophthalmoscope. Two inside pockets in dress coat; 1, stethoscope, plexineter and hammer; 3, visiting list. Four pockets in pants: 1, cash, (pay as you go); 2, physician's knife; 2, pocket instrument case; 4, pocket handkerchief (clean). No pockets for whiskey, tobacco or cigars.

You should carry a large and well-balanced brain, educated and cultured, and thank your father and mother for the entailment of a good physical constitution. Last, but not least, have a well appointed office and library. Keep your own drugs, keep your own horses and rigs in a well appointed stable. Command. Order. If you would become an expert in the life saving service, keep on your table the "Medical World Manual of Treatment," and "Formulæ of American Hospitals."

Pseudo-Hypertrophy From Venous Obstruction.

Prof. Jonathan Hutchinson, F. R. S., of the London Hospital, records in the *British Medical Journal*, an interesting case of muscle hypertrophy from venous obstruction. The patient consulted his physician for some important cutaneous affection, when it was incidentally discovered that one calf and thigh were larger around by an inch and a half than the other, and to give weight to the condition, it was noticed that the larger limb was out of proportion to the balance of the body. The man gave a history of having had typhoid fever twelve months previously, at which time he suffered from severe hemorrhage of the bowel and later a painful swelling in the iliac fossa, which caused venous obstruction, local edema and varicose veins (of course.) After the subsidence of the swelling and edema it was noticed that the muscles of the leg did not emaciate. He complained at the time of the examination by Mr. Hutchinson, that his leg became tired easily, and that it was not as strong as the other. He had failed in health since the subsidence of the edema and has lost flesh, but Mr. Hutchinson was of the opinion that even if the venous obstruction did not produce hypertrophy, but merely prevented waste, still the same laws would apply, and the circumstance was not the less interesting on that account.

He was sure that the condition he saw was not a similar one to "one leg edema," or "elephantiasis," in that in those affections the overgrowth was rather of the cellular tissue and skin than of muscle, while in this there was clearly a confinement of the hypertrophy to the muscle itself, there being no increase in the thickness of the skin nor of the cellular tissue.

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Treatment of Initiatory Symptoms of Meningitis.

A most intelligible and plausible exposition of the indications of beginning attacks of cerebro-spinal and spinal meningitis is set forth by Dr. J. McFadden Gaston, of Atlanta, Ga., in a paper published in the June number of the *American Lancet*.

The writer of the article calls attention to the importance of an early diagnosis of the trouble for, he argues, if a diagnosis is not made at the very beginning, and prompt measures adopted to meet the exigencies of the case, very few if any of the severe cases recover. The fundamental element in serious cases at the outset, is evidently, he thinks, an overpowering impression upon the nerve centers; and those who have watched closely the concomitants of the early stage must have remarked a striking correspondence between the main features of this disease, and those found in the pernicious fevers or those cases known as congestive chills. The heat of the head, coolness of extremities, heavy respiration and general discomfort are common to them.

He admits that it is one of the most difficult problems in clinical study to make a diagnosis in the early stages of the disease, but insists that after the inflammatory processes have became clearly outlined, it is then too late even to lessen the severity of the attack. No features of positive character exist that can be relied upon for diagnosis; even the prime symptom, and one that is pathognomonic when present—is often absent or comes on too late to serve any diagnostic purpose. However, he emphasizes the necessity of appreciating the general condition at an early period, and of acting at once in opposition to the general congestion, without waiting till it can be positively determined as to the precise direction or tendency of the disease. He thinks it is enough to know, that there is present a most depressing and disinregrating congestion, that if controlled at all, must be combated at once, and most vigorously.

In these cases, the indications are to be met by measures calculated to restore the failing vital organs, and arouse the flagging nerve centers to action; he finds that this is best done by revulsive applications externally, and revolutionizing measures within. He disproves heartily of the plan of the administration of anodynes; "they clog the secretions and benumb the sensibilities," and while he has seen, in isolated instances, opiates afford at least seeming relief, his theory is that they in most instances only soothe the passage to the grave.

The writer of the paper has derived much satisfaction from the prompt administration of 15 grains of quinine and 5 grains of calomel, given every two hours until four doses have been given. The local determination of blood to the head he has relieved by the immersion of the extremities in hot water and the application of ice and cold water to the head. Other troublesome symptoms may be met as presented—the prime indication being always kept in view—the reduction of the congestion.

Two typical cases and their successful treatment, are cited as corroborative of the correctness of the principle of action advised.

This principle is nothing more nor less than "an ounce of prevention is worth a pound of cure." Though long known and trite, there is perhaps no one thing that is engaging more universal attention among the profession, than this question of how to ward off disease.

Dr. Wm. Schmitz, Mt. Calvary, Wis., adds two more cases of chronic eczema to those successfully treated by the application of sorcin (Therapeutic Gazette.) To one-half ounce of the drug he adds sufficient glycerine to make four ounces. This is painted with a goose-feather over the entire eczematous eruption twice daily. After several applications the patients become more quiet, the pruritus is diminished and improvement gradually sets in.

It will pay you to notice the advertising pages, and in writing please mention the Review.

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EDITORIAL PARAGRAPHS.

BY DR. I. N. LOVE.

At the recent meeting of the Indiana State Medical Society, Dr. Geo. Rowland read a paper on the always interesting subject "Is Craniotomy legally or morally justifiable?" The discussion was animated, but though argumentation upon the subject were indulged until the crack of doom the opinion of no man, whether upon one side of the question or the other, would be in any manner changed.

Sentiment and clerical dictum have much to do with opinions upon this as many other medical subjects and possibly correctly so.

That many unborn skulls have cruelly and needlessly been penetrated and crushed is unquestionably true, but that there may be cases of such severe contraction of the maternal pelvis as to preclude delivery, all must admit, and unless the Cesarean operation can be perfected in such manner as to be the less dangerous procedure, I think we can determine the question better by bringing the matter home to ourselves. I am free to say that as the question stands to-day were one confronted with it in his own household he would not be long in deciding in favor of craniotomy against Cesarean section in spite of church or state or the combined powers of the world, the flesh and the devil.

* * *

That the best interest of medical men and the profession to which they belong is subserved by local, state, sectional and national organizations is believed by all progressive doctors.

An interesting event at the banquet of the Indiana State Medical Society, June 5th, and one which was in the form of affirmative testimony to the above proposition was the reading by Dr. W. H. Wathen of a letter from the eminent Dr. Daniel Drake, one of the great medical minds of America as well as pioneer and statesman in the early times of Ohio.

Dr. Drake's sister was the first wife of our own Dr. Joseph Nash McDowell (and mother of the late Jno. J. and Drake McDowell, of St. Louis.)

The great man has been dead many years and the letter seemed like a voice from the great beyond, bearing date of forty-one years ago. After the usual number of preliminary "*Ahems*" to clear his flute like voice Dr. Wathen read as follows:—

CINCINNATI, O., May 22, 1847.

I returned yesterday from the annual meeting of the medical convention of Ohio at Columbus. Of the great utility of such conventions to those who compose them, if for no others, there can be no doubt; and that when the time shall come that they are numerously attended by the physicians of every State in the Union, the profession in the United States will be found advancing in aspiration and in intelligence much beyond anything we have yet seen. One hundred and twenty physicians of thirty counties of this State were present. The fifth pair of nerves were exercised not less than the seventh, and the discussion of the latter did not send forth a single angry or resentful expression. There was emulation without rivalry and wit without wine.

DAN DRAKE.

The reading of this letter made a profound impression upon the listeners. His reference to the exercising of the fifth pair of nerves as well as the seventh, and the presence of emulation without rivalry and wit without wine was echoed by the occasion and the audience present. Prior to the Marion county banquet I should have looked upon a dinner of such character without wine like the play of Hamlet with the melancholy Dane left out, but the evidence was strongly in favor of the absence of wine. The 500 guests remained almost in their entirety, and at 3 A. M. old and young looked bright and cheerful, and the sleepy or stupid were not visible.

* * *

One of the jolliest hits of the evening was made when the Toast-master, Dr. Thompson announced:

The following telegram has just been received from the humorist and statesman, Bill

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Nye, who was invited to be present on this occasion. He says:

JUNE 5.

Dr. Franklin Hays, Denison Hotel:

"Sorry I cannot be there. May you and associates continue to take life easily, as heretofore.

BILL NYE."

Great applause, which commenced as a murmur and increased to a roar, followed the reading of the message and it was continued for several minutes, augmented at intervals by the stragglers who were slow in catching on to the joke.

* * *

While on the subject of state medical society gatherings, I noticed that the annual Pennsylvania meeting at Philadelphia was quite interesting. In the columns of the daily papers I see a reference to the closing day's session where several interesting little events developed. The eminent and scientific Dr. R. J. Levis is thus referred to:

"President R. J. Levis called the association to order and opened the fourth and last day's proceedings. The fastidious and learned president has worn a different suit each day, and it was remarked upon with evident pride by some of the delegates this morning that he did not break his record in this respect on the last day."

It is refreshing to read of a doctor who feels that brains, energy and scientific eminence are in no way incompatible with an artistic regard for personal appearance.

* * *

"Dr. John H. Packard's resolution, relative to the code of ethics, was tabled."

The society is to be congratulated that the moth-eaten mouldy and fermentative questive of ethics was thus ruled out. Let every society in the land remand all questions of ethics to special committees and accept their dictum as final, whether right or wrong, and decide that only questions of science are to be discussed in the general sessions.

* * *

DR. WOOD'S BURLESQUE OATH.—"Dr. E. A. Wood, of Pittsburg, a tall, fine looking and eloquent delegate, here arose with a merry twinkle in his eye and after stating that, as the Hippocratic oath has already been administered to the newly-elected president, he suggested that the following hypocritic oath be also administered.

Having been duly elected the president of this society, do you promise to hold the Pennsylvania Medical Society, as it has been held by many illustrious men, as a stepping stone to success, as a rung in the ladder of fame, as a lemon to be squeezed, as a lever to raise your hopes, as a block and tackle to exalt your ambition, as a peacock's feather in a jackdaw's tail, as a lion's skin on a sheep, a spur on knighthood's heel, a garter on the leg of a courtier; a medal on the breast of a hero and a convenient method of advertising your business, and that as soon as your time expires you will forever after turn your back on it and ignore it forever—Selah."

President Levis thought that it should be referred to the Committee on Lunacy, but Dr. Wood suggested the Committee on Canals and Inland Navigation."

Dr. Wood is an ex-president of the Pennsylvania Society, and the humorous oath could come from him quite gracefully.

I fancy I can see the keen sense of fun in the lines of his face as he noted the effect of his resolution upon the assembled members.

Too many ex-presidents of medical societies seem to feel that they now have received all possible honor from their fellows, and are willing to retire upon their laurels. They should then rather feel it their duty to be more than ever zealous in return for favors received.

* * *

The *Med. World* and some other journals have been discussing for some time the question of an individual uniform dress for doctors, concluding in favor of olive green cloth. The intense heat of the past few days would almost lead a tired and over-warm M. D. to favor the scant garb of the hottentot, but if the decision be in the direction of announcing at all one's business by one's clothing, prom

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y green would do as well as any other lor.

For the present, however, let us continue e "dress as you please" plan.

CORRESPONDENCE.

PARIS LETTER.

PARIS, June 10, 1888.

EDITOR REVIEW. Dr. Duriz has lately iblished an interesting work on a very rare ɔident of confinement, viz., uterine tetanus. The womb may be affected during labor in ırious pathological ways, bearing some anogy to uterine tetanus. They are: uterine ieumatism; symptoms: fever, sudden pains, ɔssibly extending beyond the womb, in-'eased by pressure and movement.

Puerperal tetanus, the result of infection, ɜembles surgical tetanus; is, consequently, ɔcompanied by trismus, opisthotonos, etc. It followed, after the ejection of the child, y spasms of the inner orifice of the womb, hich closes, preventing the issue of the af-r-birth, or bearing on the womb itself proıces complete or partial hardening of the acenta.

Spasms of the womb, in connection with ɔnfinement, characterized by its sudden ɔntraction, or of its neck, when the latter ɛcomes rigid. If the spasm be continuous, ıen it is caused by uterine tetanus, which is mply a permanent contraction of the womb, ıd can continue from 18 to 36 hours.

It may be caused by the early rupture of ıe membranes, by any obstacle in the connement, and by a wrong presentation of the ıild, especially the shoulders being foremost. he prognosis is absolutely fatal to the child, om the fact of the tetanus. It must be re-ɜrved for the mother, who is endangered y the long labor, and the measures neces-ɜry to assist delivery.

Preventive treatment consists chiefly in ıecking a faulty presentation. In a case of tanus the means for allaying the spasm be-g uncertain and at times dangerous, if, af-r several attempts at version, attempted under chloroform, the delivery is not effected, it is better to have recourse at once to embryotomy. The average of deaths from this operation is about 6 out of 53.

At the meeting of the March 24 of the Societe de Medecine de Paris, M. A. Dehenne read a note upon the treatment of tonic blepharospasmus by the section of the supra-orbitar nerve. Tonic blepharospasmus, the only form of this affection which is really dangerous, is not common. The contractions, in this form of blepharospasmus, which are often painful, are incessant, and last from several seconds to several minutes. The patients are unable to walk out of doors unaccompanied; they are forbidden every occupation which necessitates the use of the eyesight. When the affection is of ancient date, the attacks, which occur from 20 to 40 times daily, are accompanied by the following phenomena: The space between the eyelids is contracted, the eyebrows sink down over the upper eyelid; there are incessant clonic spasms in the lids.

Neurotomy is the only treatment which has proved effectual in checking the contractions in tonic blepharospasmus. Double neurotomy is sometimes practised even, when as is usual the blepharospasmus is two-fold. In most cases the section of one supra-orbitar nerve suffices. The operation is effected as follows: The passage of the supra-orbitar nerve is traced with a pen and ink, as far as the union of the interior third portion and the two exterior third portions of the eyebrow. The skin is seized between the thumb and finger; a vertical fold is thus formed, at the bottom of which the blade of a small bistouri is introduced in a flat position. The skin being released, the bistouri is carried over the sub-cutaneous tissue in front of the vasculo-nervous bundle, and the passage of the neurotome is thus prepared. The cutaneous puncture is made about 1 cm. above the eyebrow. Immediately, the bistouri is withdrawn, the neurotome, which is merely a blunt pointed bistouri with a slightly convex blade, is introduced, likewise in a flat position. On reaching the vasculo-nervous bun-

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dle, the instrument is turned round, and rested against the frontal bone. A series of cuts are then effected until the periosteum is reached. The neurotome is then placed in its former position, and is rapidly withdrawn. Strong compression, with a coin, wrapped in cotton wool, is exercised, to prevent any sanguinolent sub-cutaneous effusion. A compressing bandage is applied. Tonic contraction entirely disappears immediately after the operation. Clonic contractions sometimes persist for a few days afterwards.

The first patient operated by M. Dehenne, in 1879, was a woman of 52, who had suffered for three years from tonic blepharospasmus. Both supra-orbitar nerves were sectioned. Immediate recovery ensued. Six months later spasms in the eyelids reappeared. Electric stimulation, with continuous currents, which had been ineffectually applied before the operation, were completely successful after it. The spasms totally disappeared.

M. Dehenne cited a recent example of the admirable results of neurotomy in tonic blepharospasmus. The patient, a woman of 58, had suffered from two-fold blepharospasmus for five years. The tonic contractions had begun three years after the appearance of clonic blepharospasmus. The patient had tried every kind of treatment without success. M. Dehenne sectioned the left supra-orbital nerve, in which the tonic form of the affection was most pronounced, Feb. 25, 1888. The tonic contraction immediately ceased; the patient was able to open her eyes. Since the operation, all spasms in the eyelids have disappeared. M. Dehenne has performed neurotomy in other cases with similar success. He considers that this treatment is the only effectual means of curing tonic blepharospasmus, which is nearly always preceded by clonic blepharospasmus.

M. Block, in his statement on the treatment of hypertrichoses by electrolyses, says, that since February, 1887, he has observed certain facts which permit him to adhere to his first opinions and to advantageously modify his mode of treatment. If the introduction of the needle into the hairy follicle be too painful, he obtains anesthesia by a subcutaneous injection of cocaine. He employs a weaker current than that indicated in his first report. From thirty to fifty hairs can be extracted at one sitting. The punctures when well made leave no scars. If they are too frequently made, or too close to one other, they have the inconvenience of favoring the further growth of hairs. If electrolysis be employed in the manner indicated by M. Block, namely, with prudence on the part of the doctor, and patience and perseverance on the part of the patient, it may be considered as a certain means of obtaining a cure.

M. Millard has observed a case where epilation carried on with extreme energy succeeded in causing the nearly total disappearance of the hairs.

M. Block says this must be extremely seldom. Generally epilation brings about the growth of hair far more ugly. Excepting by the use of electrolysis, M. Block has never seen any result achieved, save by the use of powders, such as starch and thyme.

M. Richard read a report on cold baths in treating typhoid fever, indicating the best mode of effecting this treatment, the installation of mobile baths. M. Juhel Renoy has treated 20,000 cases of typhoid fever by cold baths; the rate of mortality was not higher than 5 per cent.

M. Barth related the case of one of his relations, whom he treated in this manner. Eighty baths were given in ten days. The nervous phenomena had almost disappeared, but the patient died of double pneumonia in two days. M. Juhel-Renoy believes this to be an exceptional case, and that generally speaking, pneumonia is three or four times less frequent with Brand's method.

The minister of commerce and of industry has lately addressed a report to the president of the French republic, recommending the following measures for the better working of the public health service: Sending of sanitary delegates to those points of the territory of the republic that have been attacked or threatened by epidemics; creation of dis-

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ting apparatus in the great sea-ports; organization of the sanitary service, and attaching to this service of the professors of hygiene of the faculties of medicine. Pursuant the conclusions of this report, the president of the republic has signed the following decree:

The president of the French Republic, pursuant to the report of the Minister of Commerce and of Industry, and to the letter of the Minister of Public Instruction of April 1888, decrees:

Art. I. The professors of hygiene of the departmental faculties of medicine will fulfil, under authority of the Minister of Commerce and of Industry, the duties of local inspectors of the public health service, each one in the territorial division of the faculty to which he is attached. He will correspond with the medical officer for epidemics and with the council for public health of that division.

Art. II. Special circulars of the Minister of Commerce and of Industry will regulate the details of the present decree.

Art. III. The Minister of Commerce and of Industry is charged with the execution of the present decree, which shall be published in the *Bulletin des lois*.

Concluded in Paris, April 23, 1888.

(Signed) CARNOT.

By the president of the French Republic, the Minister of Commerce and of Industry.

(Signed) PIERRE LEGRAND.

SUBCUTANEOUS INJECTIONS OF CARBOLIC ACID.

SEDALIA, MO., June 22, 1888.

EDITOR REVIEW.—I wish to give my experience in the use of subcutaneous injections of carbolic acid. Much, of late, has appeared in the current medical literature of the day, in regard to the power of this agent in the destruction of germs, and as suppurative processes often depend upon obnoxious germs, it is in accord with theoritical grounds, to suggest an *anti-germicide* in the management and treatment of the class of disorders.

I will only give one case of the very many treated after this plan, so that my younger brethren may see the great advantage of at once adopting the measure herein advocated in all similar cases. Miss — H—— was taken down with severe pain in left shoulder, along clavicle, with inability to use the arm. There were all the concomitants of inflammation. I questioned her in regard to fracture of clavicle, but no information could be given justifying this, unless a fall out of the hammock some three or four days before, caused a fracture. The patient was of a strumous diathesis, and had been the subject of rickets. About the fourth day she had a severe hemorrhage of the nose and uterus. I gave the iron *pernit.* locally and the opium and ergot treatment internally which seemed to check the flow, but the patient took on that anxious debilitated look, that presaged blood poison. I determined to aspirate the tumor over the clavicle and, succeeded in drawing off about half an ounce of bloody viscid pus and mucus with great relief for the time. The cavity soon filled up, and I repeated the aspiration and, in order to facilitate the flow, I injected one ounce of 5 per cent. solution of carbolic acid. I could not recover the fluid injection or anything except about one dram of bloody water. I continued my internal treatment and the third or fourth day after repeated the injection which constituted my treatment.

The patient improved from the first injection. The uterine hemorrhage ceased, and after the second the nasal hemorrhage ceased the tumor subsided, the appetite returned, and my patient, after being confined to bed over two weeks, got up, being apparently entirely relieved after this second injection.

The change was so marked that the friends and attendants noticed it, and I have no hesitancy in deciding that the subcutaneous injection did the work. This will also go to support my theory in regard to the cholera germ giving way under the bold administration of Carbolic Acid.

JNO. W. TRADER, M. D.

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EPILEPSY.

LONG LAND, Mo., April 30, 1888.

EDITOR REVIEW.—Permit me to present briefly for the purpose of getting advice and information, the history of a case in my practice that I am not able to diagnosticate to my satisfaction:

The patient, a little girl six years of age, was perfectly healthy until 3 years old, at about which time, without premonitory symptoms she fell (on her right side), crying to her mother that she was cramping. There followed a clonic spasm of the right side, that lasted about twenty minutes. The upper and lower extremities were about equally affected. She was conscious all the time, and complained of the cramping, especially in the right hip.

Since then she has had many similar attacks. They have stayed away as long as two months at a time. They often come three to five times a week. She never has any warning of their approach, and never any unpleasant sensations after them.

On a careful examination I can find nothing abnormal about the child in any respect, except a tenderness over the seventh cervical vertebra.

M. G. ROBERTS.

The data above are too meager to be a basis of a positive diagnosis. But it would seem that the case is one of either epilepsy (petit mal) or hysterical convulsion; probably the former. We would like to hear and print, if briefly stated, the opinion of some of our readers. ED.

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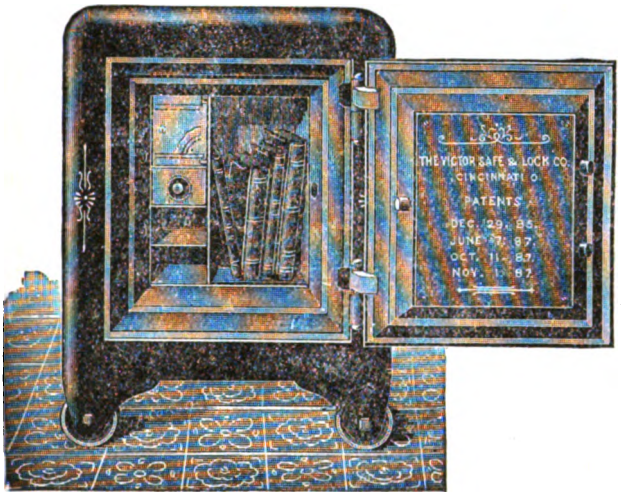

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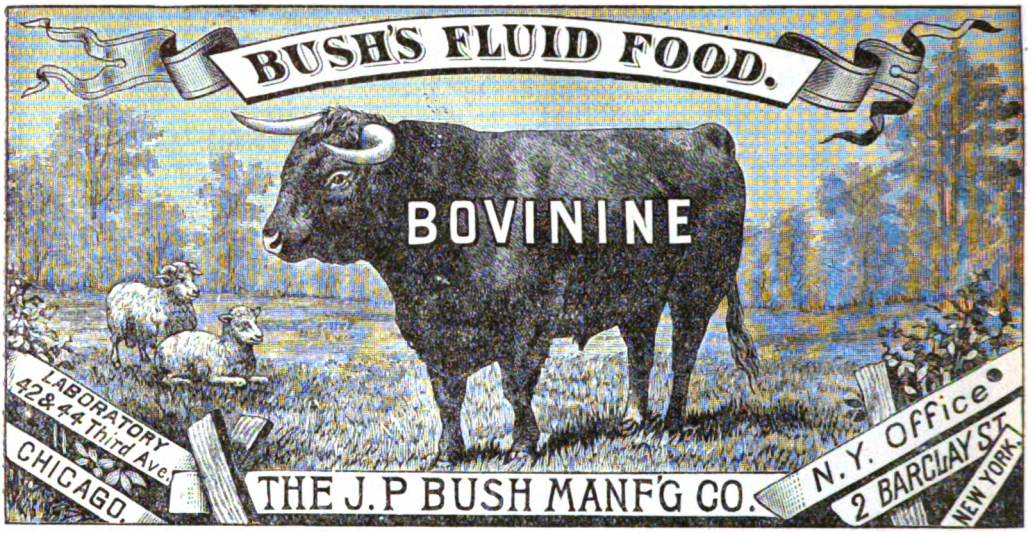

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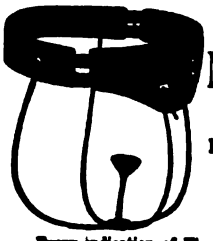

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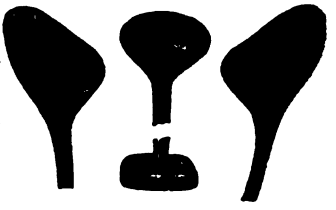

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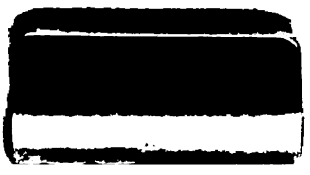
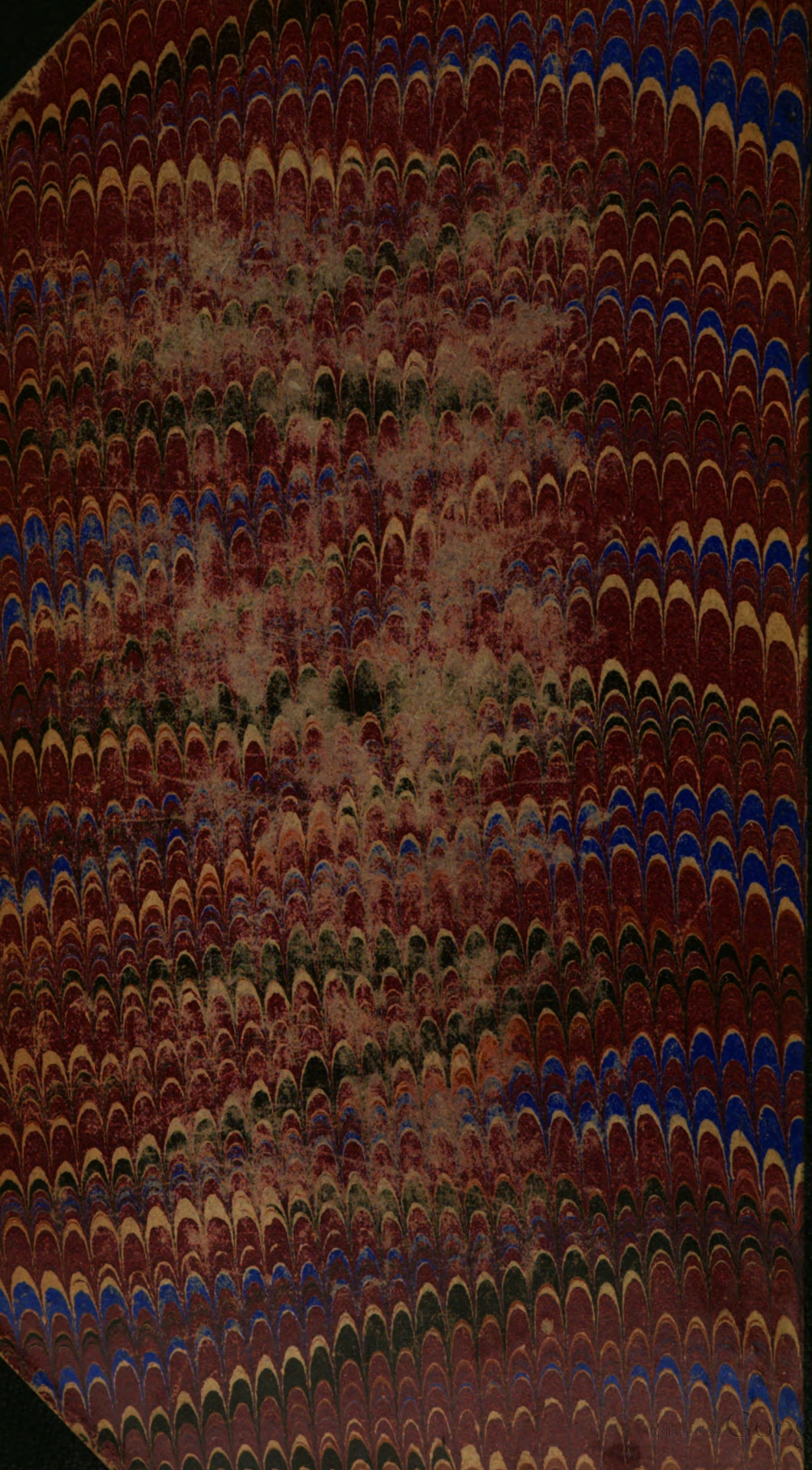
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